COLMAN'S RURAL WORLD

VOL. XIX. ST. LOUIS, MO., FEBRUARY 1, 1867. NUMBER 3.

PUBLISHED BY NORMAN J. COLMAN, EDITOR AND PROPRIETOR, 97 Chestnut Street, St. Louis, Mo.

WILLIAM MUIR, ASSISTANT EDITOR.

Special Contributors for 1867

DR. E. S. HULL,
CAREW SANDERS,
FRANCIS GUIWITS.
A. FENDLER.

COLMAN'S RURAL WORLD,

Is devoted to the promotion of the AGRICULTURAL, HORTICULTURAL AND STOCK INTERESTS OF THE VALLEY OF THE MISSISSIPPI.

It is issued on the 1st and 15th of every month, in quarto form, each number containing 16 pages, making a volume of 384 pages yearly. TERMS—$2.00 per annum in advance; Four copies, $6; Ten copies $15, and a Premium of Six CONCORD Grape Vines to any one sending the names of Four subscribers and $6; and Fifteen CONCORD Grape Vines to any one sending the names of Ten Subscribers and $15.

ADVERTISING TERMS.

INVARIABLY CASH IN ADVANCE.

Our terms will be found very low—cheaper than those of any similar publication in the country, when the benefits to be derived are taken into consideration. We charge for one square, being ten lines deep of this type, each insertion, - - - - $2.00
For one column, - - - - - 15.00
For half column, - - - - - 8.00
For quarter column, - - - - 5.00
Local Notices, per line, - - - - 0.50

The Importance of a Good Start in Vegetable Growth.

This is almost always overlooked. So that we get our grain to "come up"—after culture, after benefit, will do the rest. It is that upon which people most rely. They provide plaster and ashes, the super-phosphates, guano, &c., and rely upon these. This is evidently an error. For instance, fruit is set with a dozen or two of berries to the cluster, where it should have had double, triple that. It is in consequence of the poor soil or treatment, or both: or, on the other hand, by the excess of wood growth, that so few berries are set—they are set according to the capacity of the soil and plant. Now, all the after-culture of the plant will not increase the number of berries; it will increase only the size. Thus we have had clusters of a neglected grape vine, so crowded in the berry that a quarter to a third of the berries had to be removed. This, in consequence of improved after culture—in one case caused by removing several of the main divisions of the vine, thus throwing the increased force into the rest. As the germ sets the fruit, so will it be, save in size of berry only.

Another thing is of still greater moment.—Endogenous plants, which grow from the outside—of which Indian corn is a noted example—will put forth in sprouting something approximating the future thickness of the stem, reaching in a short time the full, or nearly the full, circumference of the stalk. The growth after that is upward, in length, but necessarily more or less proportioned to the width. If then a slender stem is put forth—slender it will be, more or less, during its growth.

This is one of the reasons why rich soil, or soil manured at the surface and harrowed in at the time of sowing, yields the best of crops. Top-dressings of hoed crops will benefit, but in a less degree—sometimes very little, sometimes nothing at all. You can never make a heavy stalk of corn out of a spindling plant when it issues from the soil. You can improve it in length; but only a little otherwise.

Of course the grains which are not of this nature (the exogenous) are exempt from this influence. They will expand laterally as well as lonitudinally. Still the measure of the plant in its embryo, will more or less affect its growth during its life.

Here, then, we see the wisdom of preparing our soil properly, and of getting the right seed—for an imperfect seed must necessarily produce an imperfect plant. "Start well" is the old maxim. It is specially so in the vegetation of plants. The start is more than half here. After-culture will help, But it alone will never make a good plant—never make a good one out of a poor one. You might as well change black into white in the plumage of birds, or make a barley-corn grow from an acorn. Let first principles then be right. If these are right, there is little doubt that the same industrious hand that secured the good start will not neglect the rest. Secure then a good start to all that grows out of the earth; and so of the animal world as well. There is a strong analogy between the two.

Seed corn should be selected in the field.

[Written for Colman's Rural World.]

MISSOURI compared with VENEZUELA, as a Permanent Home.

BY A. FENDLER, ESQ., ALLENTON, MO.

NUMBER I.

Being informed that many persons, desirous to emigrate from Missouri, propose to go to South America, and especially to Venezuela, a country in which I have lived for four years; and being, moreover, requested to furnish for publication a short article about the climate of that country as compared with Missouri, I take the *Rural World* to be the proper channel through which to communicate my experience; because I know there is implanted in the breast of many an honest tiller of the soil, a restless desire—an unappeasable longing—after some more favored clime and region, where he may bid forever farewell to discontent and drudgery. Wherever our lot has been cast, a still brighter spot looms up in the dim horizon, and fancy beckons us to a happier home beyond.

It may seem strange for one, who having traveled in his youth over a considerable portion of the earth's surface, both in Europe and America; having resided in different parts of the United States East and North: as far South as Texas, and as far West as Santa Fe, New Mexico; one who has roamed for years over mountains and valleys of tropical countries, and tarried in one of their most beautiful regions, considered by common consent of travelers as an earthly paradise: it may seem strange, I say, after all his experience, to find him in mature age settled down in St. Louis county, Missouri; especially when it is considered that no ties of relationship or particular affection to any one induced him to do so. But so it is; careful comparison of the impressions gained in visiting the different countries made him choose in favor of Missouri, and induced him to return and to light upon this very tract of terra firma for a location of a *permanent* home.

The climate of Missouri compared with that of Venezuela. Nothing can be more unlike each other than the climates of these two countries; and I may as well remark here beforehand, that in this respect Venezuela has the advantage,

Missouri has what meteorologists term, an *excessive* climate, subject to extreme heat in summer and extreme cold in winter, with great and sudden fluctuations in the thermometer; whereas Venezuela enjoys a most *equable* climate, subject to but few and small changes of temperature. In the latter country the barometer also shows but insignificant fluctuations of disturbance in the atmosphere, and is in its daily periodical motions almost as regular as clock-work. In Missouri, on the other hand, these fluctuations are most extravagant and irregular.

Gales, piercing north-westers and hurricanes, so destructive in the United States and the West India islands, are unknown in Venezuela.

As Venezuela is much diversified by high mountains and deep valleys, it naturally presents different climates in different heights above the sea. But, though you may visit in one day's travel, as you ascend the mountains, three different climates, viz: 1st, The hot, sultry climate of the coast of Laguayra—2d. The climate of eternal spring in from 4,000 to 6,000 feet—And, 3d. A region disagreeably cold at 7,000 to 8,000 feet: yet each climate in itself is almost invariable; that of Caracas being perhaps the most variable.

To illustrate the above assertion by numbers, let us look for a moment at the following table, containing monthly means, maxima, minima, and range of temperature for 1857, at Colonia Tovar, 6,500 feet above the sea, as compared with those of Allenton, St. Louis County, Mo., for 1866. Both sets of observations were made with the same standard instrument:

The letters C and A at the top of the columns represent—C for Colonia Tovar, and A for Allenton.	Monthly Means.		Maxima.		Minima.		Range.	
	C.	A.	C.	A.	C.	A.	C.	A.
January,	54.6	28.7	67.	58.	46.	—4.	21.	62.
February,	56.9	29.7	67.	70.	52.	—14.	15.	84.
March,	58.0	40.0	69.	84.	51.	11.	18.	73.
April,	59.9	57.1	72.	93.	55.	22.	17.	71.
May,	58.9	59.9	65.	88.	55.	35.	10.	53.
June,	58.4	68.7	68.	91.	53.	39.	15.	52.
July,	58.5	75.7	68.	95.	54.	51.	14.	44.
August,	58.5	68.9	66.	97.	54.	38.	12.	59.
September,	59.8	59.3	70.	89.	55.	30.	15.	59.
October,	59.4	52.8	68.	78.	56.	22.	12.	56.
November,	58.3	43.2	68.	77.	49.	17.	19.	60.
December,	56.8	31.1	68.	56.	51.	—1.	17.	57.
Mean of year,	58.1	51.3						
Highest Max. and lowest Min.			72.	97.	46.	—14	26.	111.
Range of Year,								

We see from the above table that the difference between the highest and the lowest temperature during a whole year at Colonia Tovar, Venezuela, is but 26 degrees. At Allenton, Mo., I found the out-door temperature on the 12th of January, 1865, rising 45 degrees in 7 hours; and on the morning of the 21st of March, 1866, it had been falling 60 degrees in 16 hours. The highest temperature ever observed by me in St. Louis County was 106 degrees, the lowest 22 degrees below zero—both in 1864—making a difference of 128 degrees in one year.

The preceding table gives us the temperature of the *mountaineous* region of Venezuela, 6,500 feet high. Now let us descend a little lower, say to Caracas, the capital of the country, 3,000 feet above the sea. Here I found the mean temperature of June to be 72.°5, of July 73.°3, of August 72.°6. The highest temperature for the same months was 82.°, the lowest 65°. The greatest change of temperature in 24 hours was 15 degrees—generally it is but 9 or 10 degrees. Still lower, near the level of the sea, at Laguayra, thermometric observations have proved that the climate of the northern shore of Venezuela is one of the hottest in America, its mean temperature of the year being 81.°, that of Vera Cruz, Mexico, but 77.°; yet the heat at Laguayra is not insupportable, for a sea-breeze is springing up regularly about 9 or 10 o'clock in the morning, stiffening till noon, and gradually dying away towards evening. So much for temperature.

With regard to moisture, the climate of Venezuela is divided in the rainy season and the dry season. The latter generally commences about Christmas and ends with the month of April. The remaining eight months of the year, from beginning of May to end of December, are taken up by the rainy season. The limits of the latter are, however, not invariably the same for every year, but are sometimes more or less extended or contracted.

During the rainy season, the rain generally falls but for a few hours each day. Still there are some days to be found without any rain at all. Very little rain falls before 7 in the morning—the greatest quantity between 2 and 3 P.M.

The same chain of lofty mountains that gives to Venezuela such a diversity of temperature, gives to it an equally great diversity of moisture, rain and cloudiness. There is, for instance near the coast, a narrow strip of country, stretching along the sea from Laguayra to beyond Cumana, which seems doomed to eternal drouth. A bright, clear sky rests forever over its heated soil. Standing on it, you can see, almost daily, throughout the rainy season, the dark masses of the storm-clouds accumulate around the peaks of the near mountains at a short distance from the sea, growing denser and darker, and at last bursting forth in fertile and refreshing showers. Yet, at the same time, the thirsty strip of ground you stand on remains dry and languishing, burnt up with the fervent rays of a tropical sun.

Thus you may find here existing in close proximity: ever dry and dusty soil on one hand—torrents of rain on the other: shrivelled vegetation in one place, and near by the richest of never-ceasing verdure.

[TO BE CONCLUDED IN OUR NEXT.]

[Written for Colman's Rural World.]

Jottings from the Country--No. 3.

In my last, I treated of shelter, light and pure air for the horse. In this I shall have something to say of feeding. There is a happy mean in feeding horses in winter, that is hard to strike. The horse should be kept in health and strength and not allowed to become loaded with fat or suffered to become a skeleton. One extreme is as bad as the other. Yet there are parties who advocate both these extremes. Some say they want something to work upon in the spring. They want the horse fat and strong in spring to endure the hard work that will be given him. I think they make a great mistake—whether the horse is to be used for farm work or to be trained on the track. If the latter, the horse will have to be worked so hard to reduce him, to get him in shape and condition, for the test of all his powers, that he will become sore and also lack the spirit and nerve requisite for the severest test. A horse loaded with superfluous flesh, stands a poor show in a severe contest either as a trotter or a runner. The surplus fat must be got rid of. And the work and sweating necessary to do this, in most cases, will prove injurious. The extra weight the horse has to carry with hard work will injure his feet or legs. Now if all this unnecessary work and sweating can be avoided and the horse be still put in proper condition, how much better it will be—and this can be done if the happy mean of feeding can be arrived at.

The starving process in winter is however equally objectionable. Some think the horse should be fed but little in winter as he has no work to do. They can then easily reduce his flesh—and hay only is fed, and sometimes very poor hay at that. In addition the horse is turned out in the corn field to freeze and harden him, as they say. The horse when taken up in spring is nothing but a skeleton. I have seen scores of horses thus treated. Now it is just as bad, if not worse, to fit a horse for a race in the last named condition, as in the first named. It will take half the summer for the horse to obtain strength enough to be fit for a race. His old coat will hang on him the entire spring. He can stand but little work. He has been weakened and permanently injured by this starving process. A certain amount of heat is requisite for the animal system. The food gives the heat. If the food is not given to impart it, the animal suffers. A steam engine can't be run with insufficient and inadequate fuel. Fuel is to the engine what food is to the horse, and should be sufficient in quantity and proper in quality. Now with the horse thus starved—the due amount of animal heat has not been kept—the constitution has been impaired—the horse has been preying upon, consuming himself. And this, I am sorry to say, is true of half the stock in the West. It is true in regard to horses, colts, cattle, calves, sheep and hogs. True with all animals unsufficiently fed and exposed to the winter's blasts and pelting storms, with nothing but the cold earth to lie upon. When will farmers see that it is to their interest, their pecuniary interest to

shelter stock, provide warm beds for them, feed then sufficient nutritious food and keep hem always thriving. It is the wisest economy to do all this. It takes less food. Stock kept thriving all winter are ready for sale at any time the next summer. But if skeletons in spring, they are not fit for market before the next fall, when they must come in competition with the stock of everybody. Better prices are obtained much earlier, and if you prefer to wait till fall, your animals have been thriving all summer and winter, are much heavier, fatter and more valuable.

But I am a little off the track. My Pegassus will bolt now and then, but I will bring him back again where he flew the track, as soon as possible. I said the horse had been injured, and probably permanently injured, by this starving process. The *happy mean* of which I have spoken has been disregarded. But what is this happy mean. How much should a horse be fed so as not to become too fat or too poor? These are hard questions. Very much depends upon the horse. Some horses keep easily and fatten readily, and others require considerable food to keep in proper condition. So no regular rule for all horses can be given. The wants of each horse must be understood and regarded. All horses in winter should have what hay they will eat up cleanly. Timothy is generally considered the best hay. It is thought to be better for supporting and supplying power of muscle. But clover hay, properly harvested, is equally good in my judgment. Dr. Jennings of Philadelphia, thinks it superior in most respects to Timothy for horses or cattle. But I believe in giving the horse a mixture, variety. Any of us would not like to be kept on a single dish or any *two* articles of food. We want change, and a change or mixture is desirable for all horses. Give Timothy; give clover; give orchard grass; give red top—anything that is free from dust and well harvested, and the horse will regard it with favor. Corn stalks, and particularly the leaves or blades of corn, cut and secured from the weather, are much liked by horses; Hungarian grass, if cut before the seeds have become hard, is good coarse food for horses, fed occasionally.

Oats is the best grain for horses, and in winter about six quarts per day is the average quantity to be used. A less quantity may be used and a few ears of corn substituted occasionally or almost daily. In winter, corn is not bad grain for horses, and it can be used with oats about half and half advantageously, and if fed to horses exclusively in the proper quantity, is not detrimental. Bran mashes should be given once or twice a week regularly, to keep the bowels open and regular. Cooked carrots or parsnips, or in a raw state, are very valuable. But it must be recollected that all these must be fed to some extent in lieu of the oats, or the horse will be got in too high condition.

It is positively poor practice to call "book larnin" all bosh, to ignore news and agricultural papers, and attempt to keep up an even yoke with your progressive neighbors by main strength and stupidness.

[Written for Colman's Rural World.]

MOLE TRAPS.

In a recent number of the *Rural World* is a notice of moles, confirmatory of our experience with those "little great pests."

We wish Mr. Riehl much success in poisoning them; but it is a mode that gives us little satisfaction. The moles *may* take the poison, and they *may* die; but it is hard for us to know it. We prefer the trap. We like to see him face to face—ask him through his stomach, "Guilty, or not guilty." We take a pleasure in taking hold of his broad, irony hand, as a pledge "he will never trouble us again.

We furnish a drawing and detail of a trap that can be easily made on a winter's night or rainy day, with but little outlay, and one which we have used for a long time with great satisfaction, where the soil is soft and no roots in the way. It was made for us by Mr. W. H. Colman, of Mt. Comfort, in this county—a gentleman who, with all the qualifications necessary to one of our largest, most wealthy, intelligent and successful farmers, cannot be beaten in the workshop as a mechanic. From the making of a fish-hook, the forging and fitting the hair-spring of a rifle, making a knife-blade, brazing a saw-blade to make a ferule to putting the tire on a wheel, he cannot be surpassed: yet he has gained all his knowledge *on his farm*, having been born, educated, and spent his entire life there. It his recreation, his hobby. Here is one of Nature's noblemen whom we should delight to honor, and is a living illustration of what Industrial Colleges or Manual Labor Farms would effect for our agricultural population. Whether the trap originated with Mr. C., we know not; but it was made by him in a very superior manner.

DETAIL.

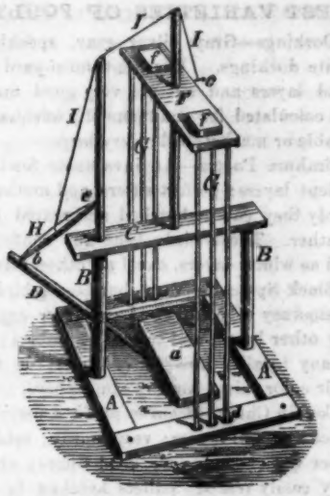
A—square sill of oak 9½x11; stuff 3 in. x 1¼ in., with inch hole in centre of 11 in. pieces, to receive two posts **B**; and three holes ⅜ in. in the opposite side, one inch apart; the centre hole in centre of piece **d**; the inside edge beveled off a little on the side of long post; the corners halved or morticed and pinned.

B—Two posts, one being 1 in. x 6 in. round, driven in sill and cross-bar **C**. The other 1½ in. x 18 in. round, cut down with a shoulder, on which to rest cross-bar **C** to 1 in., at 4 in. from sill, and driven firmly into it, and coming up through cross-bar **C**. A slot is cut through this post 3 in. by ⅜ in. to let in arm **D**, and a small notch cut in outside at **e** to receive end of trigger **H**. The upper end of post is slightly dished to hold up string **I**.

C—Cross-bar, 2½x1x10½, with three holes 1 in., one placed 1 in. from each end, and one in the centre; this is pinned to **B** at 4 in. from upper side of sill, and has a post 13x1 in. round, set in centre—the upper end is dished. The upper edge of cross-bar is beveled at long post.

D—Arm, 8 in. x ⅜ x ⅜, let in the slot in the post **B**, and working on a pin in centre of arm; pin set in slot at 1⅜ in. from sill. The point is cut down to half inch and set in block **a**, 4½x1½x1 in., with the hole bored at such an angle as will let the block rest on the soil; **b**, small notch in upper end of arm to receive trigger **H**.

F—Top piece 12 in. x 4½ x 1½, with 1½ inch hole in centre to let guide post move freely through, with a small nail **c** set in centre of side on which to tie string **I**, and having in each end three pieces of sharpened steel like hackle teeth.



G—14 in. x ¼, and sharpened to a fine point, so as to pass freely through the three holes in sill **d**.

H—Trigger of bone or hard wood 3½x½, with notch in middle to tie string.

I—String of hard cotton cord or strong fishing line, tied to nail **c** over the post*s*, and tied to middle of trigger just so long when the trigger is set in the notches in arm **D** and post **B** as to keep up the top piece **F** with the points of the teeth **G**, at the upper side of the holes in sill **d**.

f f—Weights of brick, rock or iron, about five pounds, laid on at **F**, after the trigger is set, so as to force the teeth down suddenly.

When we find a mole run in soft ground, we set down the trap with the three holes on each side *exactly* over the run; then with the fingers break up the earth in the run under the block *a*; the mole, coming from either end of the run, finds the earth obstructing his passage, and, proceeding to remove it, raises block *a* a little, which lowers the end of arm *D*, and sets off the trigger *H*, which permits the weights *f f* to force down the top piece *F*, the teeth *G* passing through the holes *d* enter his neck at the shoulder and holds him fast.

Sometimes, especially in early spring, 6 or 8 can be caught in the same run—there are almost always two in a run.

If the ground is very firm, as in crossing a path, there is another form of trap which suits well. This is a cast-iron ring, with staple, spiral spring, trigger and teeth.

The trigger when set, crosses a part of the diameter of the ring. A piece of soil 1 to 2 inches wide, and deep enough to let the centre of ring be in the centre of run. The trap is set in the run, a string fastened to the staple and to a tree, stake or rock, to prevent the trap being pulled away. The mole, in passing through the run passes through the ring and presses against the trigger, which forces down the teeth and he is held firm. This form is equally good for rats, and can be obtained at the hardware stores at a small cost.

If there are better than these, let us have them.

Wm. Muir.

It is a pretty poor practice for a farmer to dig and delve, tug and grub, and clear up fifty acres of land at a cost of $2,000, and then in the third year surrender about a fifth of it to briars, brambles, and ox-eye daisies.

BEST VARIETIES OF POULTRY.

Dorkings—Gray, silver gray, speckled and white dorkings. Excellent farm-yard fowls; good layers and sitters; very good mothers; not calculated for confinement; unequalled as a table or market fowl; very large.

Brahma Pootra—An invaluable fowl. Excellent layers; perfect sitters and mothers; so hardy they can be hatched and reared in any weather. These birds bear any confinement, and as winter layers, excel all other birds.

Black Spanish—Very handsome birds—the aristocracy of poultry. Lay larger eggs than any other breed, and in great numbers; thrive in any locality however confined; do not sit; their color suited for any atmosphere.

Cochin China—Seem to prefer a very limited space; capital layers; very hardy; seldom or never out of condition; good sitters; chickens very easily reared; pullets hatched in spring and good winter layers.

Hamburgs—Very handsome birds; unusually good layers; bear moderate confinement well; do not sit; most attractive on lawns.—Varieties—Spangled Hamburgs and Penciled Hamburgs.

Polands—Remarkably handsome birds; very good layers, but non-sitters; unfit for confinement. Varieties—Golden and silver spangled, and black with white top-knots.

Bantams—Useful to those who are fond of birds, and are deterred from keeping them by lack of accommodation; to those who have only a very limited space at command, the different varieties of Bantams I would recommend. The principal kinds are golden and silver-laced sebrights, game, black and white, and Japanese.

Ducks—For table use exclusively, the Aylsbury stands first on the list. It attains early maturity, and lays when no others do. The Rouen is a remarkably handsome duck, exactly resembling the wild duck in both sexes. Muscovy ducks are too well (and may I say unfavorably?) known to need description.—*Cor. Wilkes' Spirit.*

ABOUT CELLARS.

Bad cellars make bad butter, whether in the jar, in the cream, or in the milk. In all stages it attracts odor. It does this rapidly. In one night the evil may be done; in double the time, to a double extent; and so on in the same ratio.

And cellars are not generally clean. They are "cleaned," but not cleansed. Who cares? for no one will see them; no one *can* scrutinize them closely. This, we presume, is common: and the worse that it is, for the reputation of our housewives. Only instinctive neatness will keep cellars clean—and then the cellar is a fit place to live in, a basement habitation. A neat wife will be proud of her cellar as well as her parlor. You will find in it only what is clean, and of a cleanly nature. Rotten apples and roots have no business there. They can never show their heads in a neat housewife's cellar. Mould, the great pest of a cellar, has no business there; nor dampness, the prolific mother of evil. Air is admitted, or shut out, according as it is damp, warm, or cold. If the south wind blows, she has doors shut, as it drives out cold air necessary to preserve things; she throws open to cool, dry air, always guarded, so that it does not freeze. In this way she preserves her fruit, and also avoids rot and bad smells. She keeps butter good by it—no, this is not among her calculations—she keeps it good because she makes it good and puts in tight, clean vessels. But she saves her cream for her coffee, if she has to buy it—no again—she knows that milk long standing gets bitter. Preserves, it will help; so it will meat, if she keeps that, and many other things—and it will do much more—it will keep the odors from generating: cold air will do this.

You will see such a cellar limed, sides and ceiling. This aids the woman. It absorbs the odors of the cellar, and gives out its own, thus purifying it.

But the cleaning must be done oftener than it is usually done, once a year. You might also as well dispense with it entirely. It needs *keeping* clean. That requires a constant supervision; attendance upon the doors and windows; inspection of the fruit and vegetables, if vegetables *will* be kept; sweeping; mopping; white-washing, &c. This requires a daily vigilance, especially the windows and doors.

A foul cellar will foul a whole house. It will infect it with pestilential vapors, the stench of the hell below—a place to live in, which would be out of the question. The light gases will find their way up. This living over a pestilence is not desirable. No doubt many sickenesses, could the secret be known, might be traced to the cellar. Why not, when it is worse than a slough-hole?

We have spoken of the wife taking care of the cellar. It is the business of the man, or boys, to assist her; it is a man's work so far as the labor is concerned, especially where the cellar is large, and where rats are troublesome as in old-fashioned cellars.

A sweet cellar is like a sweet disposition—it regulates the whole house.

Dry Soil, a Preventive of the Effect of Frost.

This is hopeful to the farmer—to know that dry soil will ward off the effect of frost. Soil well-drained and comminuted will hold no water, and hence frost has no advantage. There can be no frost where there is no water—and well-drained or dry soil has but little—so that but little effect is visible from this source. Set a stake in wet soil—and when the frost is severe, mark the effect. When the thawing and freezing commences, after heavy cold; when the ground is frozen deeply; you will note that the stake daily, in such alternations, is lifted—keeps lifting till it falls on the surface, if not thrust too deep, and the action of the frost and sun is considerable. Thus fence posts; fence stakes; fall transplanted trees with scant root; the grasses, &c. But set your stake on dry soil. It will set there through the alternations of the worst thawings and freezings—or if affected, the effect will be so slight as to be scarcely perceptible. Grass will stand it; clover even with its long tap-root so favorable to lifting; fences will stand, which is no trifling item; stone wall will remain firm, and only firm, on dry soil; fence posts will not heave—it will do to dig a ditch for a post fence alone—it will pay to ditch a lot- a wet field—for a single crop of wheat, so favorable is the effect of a dry soil in the case of freezing and thawing, of "heaving"—the great evil of many of our farms, especially fields, certain lots and pieces of lots.

Frost is a mighty agent—and the only thing to neutralize it, is to take away its hold—moisture. Drainage will do this. Deeper plowing in some cases will do it to a certain extent; and so will sub-soiling.

SHELTER YOUR STOCK.

Ed. Rural World:—To much cannot be said to the farmers, upon the necessity of taking care of their stock—providing shelter for it during our cold winters; for there is nothing many of the farmers in Missouri more neglect, than this. Farmers who would resent with indignity, the charge of shiftlessness, are very careless upon this point, or do not see the importance of having shelter from the storms and cold winds that are so prevalent, especially upon the prairies. I should think they would learn from experience that with every shake and shiver of their cattle, there was so much of the flesh, fat and grain wasted, which would be saved by boards and plank; but perhaps never having used the wooden barriers as a substitute for grain and hay, they do not know it will answer the same purpose. If such is the case they would do well to try it, and see if their cattle, horses and mules, do not come out in the spring, sleeker, fatter and larger, and more corn left in the crib, than by following the old plan of throwing the corn and fodder—without being separated—out into the mire and snow, to be fought for and tramped into the mud—the smaller and weaker often getting none; and after eating, to stand with back up and head down, shaking and using the foot to keep up the animal heat, that should be devoted to the increase of flesh and bone.

Some say they have no time or means to build sheds, it takes all their time to raise corn for them. They had better sell part of their stock, build sheds, and raise less corn, and save their soil. If economy will not induce them to provide comfortable quarters for *all* their stock, *humanity* ought. They ought to remember, while sitting by their comfortable firesides, or going out to feed their stock, (often, from the inclemency of the weather, neglected until noon or after,) wrapped up in their overcoats and mittens, that their stock is wearing the same coat that they wore last summer; that they are unable to protect themselves from the cold, and that while nature designed that the brute creation should be subservient to the will of man, it was no part of the design that man should leave uncared for their physical comfort and health, and that he is recreant to his duty and the trust reposed in him if he neglects it.

Observer.

Lost time is an irrecoverable gem.

GOSSIP ABOUT SNOW.

Uses of Snow—Protection to Vegetation—Snow and the Electric Telegraph.

We are now, January 20th, enjoying or experiencing the greatest snow storm that our section has been visited with for many years. It snowed steadily all day yesterday and last evening, and doubtless all night, and still it snows. It has drifted some, but not much; and how deep it is on a level, we are not able to say, but drifts of several feet in depth are common, and no ground is to be found but what has at least six inches of snow on it; and how much more it will have, before it stops, it is hard to tell, for it looks as much like continuance as it did twenty-four hours ago.

Would that this deep bed of snow had come a month ago, and remained with us till now, and a promise to remain a month longer yet; and would that such a snow would come early every winter and remain till early spring. It would be worth millions of dollars to us annually, in the protection it would afford to hosts of low-growing plants, including all biennial and perennial herbaceous plants, and many wooded plants likewise. What better protection could the noble grape vine receive than to have its canes sprawling on the ground and covered up snugly and tightly with a deep snow—so of raspberries, gooseberries and currants, but more especially strawberries—the queen of summer fruits. Wrapped up the whole winter in such a pure, spotless robe, the delicious strawberry and a host of beautiful herbaceous flowers and vegetables, would sleep through all the long winter unmindful of the changes of temperature above their heads—of the bitter freeze with the thermometer at zero—of the keen, drying biting wind, and, worse than all, of the baneful and killing winter sun—and be ready to come forth in spring in full vigor, with their juices and vitality well preserved, ready to yield their fruit or flower in all their beauty and perfection. All this would come (from the protection of snow) to the gardener. To the farmer it is equally, if not more, important, in the protection it affords to the young wheat plant, as well as to rye, clover, grass, and any and all herbaceous plants.

Our people have been in the habit of laying much stress on the snowless-ness of our winters in this middle region, as affording pasturage for cattle, sheep, &c., nearly all winter.—We think the advantage gained in this latter respect, would be much more than made up in the protection afforded by snow, to all—and more—of the plants and crops named above.—The usually deep and long-continued snows of the North, is a blessing to them which we almost might envy; and which, if ours, would render us better off, in our milder and shorter winters. The roots and crowns of all trees, and the whole of all herbaceous plants, being protected by snow, and the tops not being exposed to such extreme degrees of cold as at the North (where trees, &c., which are uninjured here, often get killed down to the snow line, but below that are protected and safe)—while here, if we only had the protection of their deep snows, with our milder winters, we might congratulate ourselves.

Snow, in addition to the protection afforded by covering up the plants, guarding them from the frosty winds and hurtful sun, not being a rapid conductor of heat, is instrumental in the earth's not parting quickly with its warmth, in the same manner as a woolen garment prevents the escape of heat from the body, but retains about the roots and tops an even temperature and much warmth, and affords them additional protection.

The subject of the uses of snow is not near exhausted; chemists placing much value on it as a manurial agent. But with this we have nothing to do at present.

Appropos of snow—being at a friend's house near Chicago two weeks ago, on coming home one evening from the city, our friend startled us by exclaiming: "Why they have had a tremendous snow storm in England *to-day*, greater than they have had for years; railroads blocked up, &c." What a wonderful thing is the Electric Telegraph—but more especially the Ocean Telegraph. It sounded like a miracle to the unthinking ear, or some great Munchausenism. But it was plain matter-of-fact and an actual reality—though none the less astounding and wonderful. C.S.

LIME AND SALT ON LAND.

Ed. Rural World: I see in your valuable paper that salt and lime are recommended as a top-dressing for wheat. Will you please give to your readers what time it should be applied; what quantity of each per acre; how to apply it, and the probable difference in yield. If the cost will not exceed the profit I will try it, I will try a small piece at any rate.

J. S. Martin, *Bridgeton, Mo.*

Remarks.—Lime for certain soils is of great benefit. In Pennsylvania, for instance, where the German farmers apply it generally to their lands in connection with the culture of clover, the wheat crop has more than doubled its yield per acre. But the same effects will not be produced on all soils, because some soils contain a sufficient amount of lime for the demands of all crops; but when the soil is deficient in lime it should be applied. To determine this question, experiments must be made, or the soil analyzed by some competent chemist. It is an easy matter, however, to try the experiment, first, with a small quantity per acre and increase the amount until the proper quantity is determined. It is applied at the rate of from fifty to two hundred bushels or more to the acre. The method of applying it, is to take it from the kiln and haul it upon the field and drop it in small heaps at convenient distances apart; some cover the heaps slightly with soil, let it remain until it is in air-slacked and reduced to a fine powder, then it is spread usually before the breaking up of the soil. Some farmers who keep the lime on hand until it is thoroughly air-slacked, spread it direct from the wagon in such quantities as experience proves best.

In regard to salt—a writer in the *American Farmer*, says: "I prefer sowing wheat from the 10th to the 20th of September, but cannot tell how much high manuring will hasten its ripening; very high manuring will retard the ripening, but the application of 280 to 300 pounds of salt will hasten the maturing at least four days, besides giving a brighter straw, more plump grain and a finer sample every way; and I think 400 pounds per acre might pay still better. I use much salt and think it prevents in a great measure rust and mildew. I salted fourteen acres of wheat last September; it now surpasses any I have seen, and is much superior to eleven acres in the same field on which no salt was sown, both being sown on the same day, and fallowed in the same manner. I have no doubt it will mature at least four days previous to the eleven acres, and those four days may put it out of danger from the midge. I get better results from salt when dry weather prevails for some time after it is sown, and I sometimes sow 75 barrels in one season, buying it at wholesale at the manufactory. I generally sow it immediately after the wheat is sown; but, if I was to be guided by theory, I would say sow it before and harrow in with the wheat. I have often thought about trying it in this manner, but have not done so."

OUR STATE STATISTICS.

We have just seen a circular sent out by the State Commissioner of Statistics, embracing a series of queries addressed to the clerks of the several counties, calling for information upon several important topics, embracing the weather, crops, &c.

Now, this might call out facts of vast importance to a scientific and practical acquaintance with our State, and of vast public value: but when we ask these men from what point the wind blows, the height of the barometer and thermometer, the indications of the physchrometer and rain-guage—we cannot help wondering about the answers. The State makes it the duty of these officers to mark and record certain natural phenomena; but have they been supplied with the necessary instruments? We know well that an imperfect class of observations is worse than none. Are these men paid for this extra work, or to be punished for its neglect? Are the men at all competent to discharge these duties? We generally find that politicians are but poor students of the indications of science or the laws of nature, however well they are versed in the indications of party and the scrambles for office. We think we see in this case an indication that political parties of all astes will see that there are offices in the State that ought to be filled by men without any reference to merely political qualifications; when the scholar, philosopher and scientific man will have his claims to State recognition and reward acknowledged; when men will have motives to study something of real value to society and to themselves; and find that there is a chance for attaining honor and emolument by the student of nature as well as by the brawling politicial.

Let us see that the present legislature will give effect to the valuable law on statistics given us by the last. Paths of usefulness lie open to men willing to distinguish themselves in the noble cause of human improvement. M.

Preserve a cheerful state of mind always.

HORTICULTURAL.

WILD GRAPES ROTTING.

In a notice of the Pennsylvania Horticultural Society in the *Gardener's Monthly*, Mr. Meehan says substantially: "In every part of the United States, in every soil, in swamp, on mountain sides, wild grapes grow vigorous and healthy. The trouble, whatever it might be, must, therefore, be in some way connected with the treatment or management of the vine.—* * * There must be some reason why grapes growing over trees should do better than over trellises."

We notice this, because we find in the Western States the wild grape rot excessively in its wild state on trees, without any management whatever. In scores, perhaps hundreds, of rambles in the woods, during the past fifteen years in this State, we have found the grape partially or completely rotted on the trees, alike in the vicinity of cultivated fields and in the depths of the "grand old forest."

We have repeatedly called attention to this fact—have exhibited bunches of the fruit and branches of the vine—have found it on the hillsides and in the valleys: but yet have no key to the cause. It is in some seasons worse than others. We have found the rot in the woods when there was none in our vineyard, although not two hundred yards distant: and this season We are trying to dig around and prune a wild vine in a tree that has rotted every year it had fruit, for eight years, to see if there is anything in management.

On one point we are convinced—that we summer and winter prune our vines too much.—There is no analogy for this course in nature, and we are now; at last, finding that art is overdoing her part—not merely helping and directing nature. W. Muir.

THE NYCE FRUIT HOUSE.

We have already announced that a company has been organized in Boston as the Mass. Fruit Preserving Co., for the purpose of erecting a house, under the patent of Professor Nyce, for keeping fruit. This Company will probably have their house completed in January, and ready for foreign fruit in February and March. In the meantime, E. S. Converse Esq., of Malden, one of the stockholders, has built and completed a fruit-house, which he has a ready filled with apples, pears, grapes, &c. The house is about twenty feet square, and we shall give a full account of it in a future number. The fruit was put into the house the last of September, and is now, November 20, just in the same condition. A few kinds of early autumn pears, which were to ripe at that time to keep more than a week or so, were put into the house, and are now, after six weeks, just in the same condition. The grapes from Mr. Converse's grapery, so ripe that they had begun to shrivel, are keeping without the least change.

Mr. Converse deserves great credit for his enterprise and public spirit in erecting this, the first private house in the United States, thus affording an early opportunity for the Company to test the capacity of Professor Nyce's Patent. The cost of the house, which will hold 500 to 800 bushels, exclusive of the patent right, was about $1000.

In Ohio, Professor Nyce's patent is well known, and specimens have been repeatedly exhibited before the Cincinnati Horticultural Society in a perfect state of preservation from six to twelve months after gathering from the trees. It is hoped that a similar exhibition may be made here of the choice varieties of pears, next spring.—[*Hovey's Magazine.*

[Written for Colman's Rural World.]

ESSAY ON THE PROPAGATION OF STRAWBERRIES FROM SEED.

BY S. D. WEBER, JEFFERSON CO., MO.

[Concluded from our last issue.]

NURSERY BED.

The location for this should be a place kept free of weeds the previous season, by numerous plowings and that deep; or otherwise spaded deep. A soil with a liberal admixture of sand is preferable. If manure has to be used, take common wood ashes and old well-rotted cow manure, with plenty of coal ashes, the latter to keep the ground loose—not that there is any other benefit derived from it.

I mention the above ingredients not that it is essential and must be done, but to be used by those where it can be conveniently had, for it will give better satisfaction.

Avoid throwing your beds into ridges; still a gentle slope is the best locality.

Lay your bed off with a garden line, setting a stake for every plant five feet each way. Number the stakes. In removing the plants commence at one end, taking out the soil until a spade or shovel can reach the bottom; or, better still, make two seed-boxes for the same water-box, as their smallness makes it convenient to raise them out of the water-box, when one end may be knocked out and the plants removed without destroying any of the roots. Take out but few at a time, and immediately transplant. This must be done as early in spring as possible, after all danger of freezing and thawing has passed.

In transplanting, do not be afraid to get upon your knees. It may soil good clothes, but won't hurt your old ones. It may draw up the skin on your fingers, like your washer-woman's after a hard day's washing; and the clean soil feel disagreeable under the finger nails: but when all is done, if done well, all will be well. Now to do this well, as I said before, get on your knees, pull up the stake No. 1, and dig your hands in the soil, making an outward and an inward movement, leaving a mound in the center, and a foot across to edges of hole. Take a plant in your left hand: untangle the roots, then with a quick motion invert the plant, throwing the roots up; place the index (or fore) finger of the right hand in the center of the root, on the crown, and with a quick motion re-invert the plant on the mound. The roots will extend on either side naturally. Cover to crown and press down firmly with the hands. Do not cover the crown. or leave the plant in a basin, or on a ridge: level with the surrounding surface is the best. Mulch with straw, tan-bark, old saw-dust, chips, corn-stalks, or anything else that is free from seed, and will keep the ground moist. When the runners start, train them around the mother plant, not letting but one plant grow to the runner; but do not exhaust the plant, by clipping the runner away, as I firmly believe it does in its effort to push new runners, and therefore it is best to clip the end of the runner just beyond the first plant. By twisting the runner around the plant, avoids mixing. These can be thinned out in the spring following, leaving the parent and three or four of the most thrifty until they fruit; which some will do two years from the seed and some three years. After fruiting pull up all worthless ones; totally destroying every one. Keep back the runners whilst in fruit, let but few plants increase from the others, until fully tested and proven worthy. It will be well the second season of fruiting to test the worthy ones on different soils and locality, and note the difference in all particulars. In speaking of mulch in general, I am not in favor of leaves in one particular, and that is, more strawberry vines are destroyed in the warm days of winter and spring by a species of slug of a dirty dark color, and about one-half inch in length, similar if not the same as often found underneath rose bushes; and leaves are a great harbor for the pests. My best variety of seedling strawberry was totally destroyed by them, over which I had thrown an arm-ful of leaves, and over them some potato vines; when lo! in the spring, on removing the cover, I had thousands of slugs and not a plant, every one being eaten off to the roots.

How to Handle Grape or Other Cuttings.

J. R. Tewksbury, South Pass, Illinois, writes: "Take your cuttings off in the fall or an open spell in the winter, and put them in a cellar free from frost. If you are very busy during daylight you can prepare them in the evening, for sprouting in the following manner: Cuttings of grapes should be one inch long above the upper eye—which eye must be sound; be careful and not rub it off or injure it for it is the 'main stay of the family.' With my method, the cutting need not be over nine inches long—will do if only three. Seal the upper end by dipping it into a pan containing hot beeswax and rosin about an eighth of an inch deep. Be sure the lower end has a smooth, fresh cut, and if convenient, just below a bud. Tie them in bundles of say 100, with the butt-ends all even, and put them away in the cellar in damp sand, or any soil will do. Very early in the spring dig a place near the top of a southern slope, or south side of a building or fence, three inches deeper than the cuttings are long, and into this put the bundles of cuttings top ends down, and cover them about three inches deep with moss. Keep the moss wet with water warmer than the

atmosphere. In about two weeks they will be well callused, and as the weather gets warm, in a few days the roots will start out and grow up into moss if kept moist. When ready to plant remove the moss carefully from one bundle at a time, and do not allow them to dry a single moment. If convenient plant just before or after a rain, and if well planted and taken care of they will do as well planted in vineyard as most plants one year old. The foregoing plan is the best where moss can be procured.

[Written for Colman's Rural World.]

ON THE CULTURE OF THE GRAPE VINE.—No. 2.

BY DR. LOUIS L. KOCH, GOLCONDA, ILL.

TREATMENT OF THE VINEYARD THE FIRST YEAR.

Like all that belongs to animal and vegetable life, a careful treatment the first year is indispensable to the grape vine. Its effects will be felt for the whole period of its life afterward. All trouble and expense given that way will be richly rewarded, and gives, besides, a thrifty growth, not seldom the third year after planting, on the strong grown vines, more grapes than another vineyard, that has been treated with negligence, in five years.

The treatment of the vineyard that is to come up to the above described standard, is very simple and easily comprehended. Of all the sprouting eyes, of which there are often many on one vine, only one must be allowed to remain. The functions of life which are disturbed by transplanting, are only just sufficient to lead to this one shoot the necessary vitality.

In the first months of spring, good care must be taken to have, after every heavy rain, those eyes laid bare again which may have been washed underground; and the solid, beaten ground stirred as soon as the ground is in a workable condition; this is done with a small, sharp hoe, which runs to a point. In the course of the summer this has to be repeated as often as necessary, in the immediate vicinity of the plants, to keep the weeds off and the ground loose; care must be taken at the same time to have as few plants miss as possible; for replanting causes far more trouble than the first planting.

The spaces between the plants require in the first years little care, but must, notwithstanding, be kept clean and mellow.

As a recompense for the expenses, if desired, some low growing plants, such as strawberries, dwarf beans, &c., may be planted in between the rows the first two years after planting. After that, the roots of the vines have generally run through the whole surface of the soil. They would consequently be robbed of part of their subsistance by between-crops. They would also be hindering in the work which must now so frequently be done during the summer, and by which it can hardly be avoided to tramp on the crops grown between.

When the vine has reached the height of from one to two feet, and is no longer able to keep upright by itself, a stake about six feet long is driven into the ground behind the vine, otherwise the roots will be injured. To this the vine is tied loosely as often as necessary. Keeping the vine upright during the growth is highly beneficial to the vine; while, if it is allowed to grow in its own way, the flow of sap will seek an exit through the lower eyes by suckers, which draw the nourishment from the plant, as they have to be cut away the following fall anyway. In consideration of this, in the course of the first summer, the suckers, (sprouts) from below, are to be removed from time to time so as not to injure the eyes next to the stem of the vine. By this, the vine will absorb all the vitality and attain strength and vigor, which I could so far not bring about by any other treatment. All this without particular interruption I carried out to the first fall. The young vineyard presents a very cheerful and hope-inspiring aspect.

Before the advent of heavy frosts, say the middle of October, the vines without regard to the number of eyes on each plant, are to be cut down to within two inches of the ground. This must be done with a sharp knife, not with the favorite vine shears. This bruises the vine too much, and often injures the upper parts of the vine down to some distance.

The small stakes used for marking, mentioned in a former article, can be used as a good protection for vines which are not hardy, by driving them into the ground slanting over the grape vine. By this the work necessary for the first year is ended.

TREATMENT THE SECOND YEAR.

In the second year, as far as regards the cultivation of the ground, the same rules should be followed as recommended for the first year.

As soon as vegetation commences, the spur which has been left in the fall pruning will throw up many sprouts. I leave all these undisturbed until there is no more danger of late frost. This is here about the middle of April; after that I remove all the weaker sprouts and leave only the strongest one to receive all the vitality of the plant. The rubbing off of the superfluous sprouts has to be repeated as often as necessary.

If the work of the previous summer has been conducted well, and the soil does not belong to the very poorest, this one vine will grow vigorous, and generally over-grow the stakes six feet high.

The sprouts are this summer only removed up to the calculated height of the future trunk (stem), that is, about one and a half feet from the ground, and thereby treated like old wood. Up higher (that is the stem) the sprouts (branches) are not touched before the fall pruning. These (the branches) are as often tied to the stakes as is necessary. If they grow too thriftily, they must be pinched back. In this, the second fall, if the plants have progressed well, they are cut back to within one and a half feet from the ground the desired height of the stem, as before mentioned, or perhaps a few inches higher.

An exception in this treatment may be made where, as was the case in my vineyard planted in the fall of 1859, it attains an uncommon vigor and strength. My plantation of 1859 as well as that of 1860 is on the ground of an old orchard which I had rooted up; the ground seemed by no means rich, but I had, notwithstanding, trouble to keep my vines to the stakes. Many broke down by their own weight, and I had much trouble to keep them in order. Taught by this, I cut the most vigorous vines of my vineyard of 1860, (when in its second year,) back to one and a half feet from the ground, the height before mentioned, in the month of May at the same time I removed all the sprouts excepting the two uppermost ones; the part below the two uppermost shoots was treated like old wood. These two shoots, now receiving all the sap of the vine, made, with few exceptions, two fine, strong vines, which on account of their vigor, I cut both to four eyes in the following fall. In addition to these I had even to cut spurs, so that the vines planted in 1860 had, after the fall pruning of 1861, the appearance of four-year old plants, which accordingly gave in 1862, that is, in the third year after planting, a crop, without in the least retarding the growth of the vines.

This should only be done in extraordinary cases, like the one above mentioned. In other cases only the first mentioned mode of pruning should be adhered to.

A further variation from this rule may take place if the grape vine is tender and needs protection in winter. This can only be done by laying the vines down to the ground. In this case, the one and a half feet high trunk would be too inflexible to bend to the ground, for this reason the vines are cut back to within three inches of the ground, the second fall after planting. The following spring there are two vines raised from each one of these stumps, which will afterward form the trunk (stem). In forming the shape of the grape vine, it must be made to incline to both sides, and in this way be enabled to lay down large vines with all their branches. That tender vines need protection the second winter, and that this protection has to be repeated every winter, is self-evident.

[Reported for Colman's Rural World by J. S. Mahan.]

Meeting of the Fruit Growers' Association of Southern Illinois.

Held at Cobden, December 19th, 20th and 21st, 1866.

[Concluded from our last Number.]

SECOND DAY.

Mr. Hinkley, of Coloma, exhibited a very fine lot of apples. Among others the Ben Davis were certainly of surpassing beauty. It is a superb apple in appearance.

The list of apples recommended for general cultivation is as follows: Early Harvest, Red June, Red Astrachan, Golden Sweet, Lowell, William's Favorite, Buckingham, Ben Davis, Rambo, Wine Sap, White Winter Pearmain, New Town Pippin, Rawles' Janette, Yellow Belleflower, American Golden Russet, Lady's Sweet, Winter Sweet Pippin or Jersey Black, Rhinish May, Egyptian Russet, Willow Twig, and Pryor's Red.

The following officers were elected:

Parker Earle, President;
V. K. Deyo, Vice President;
T. A. E. Holcomb, Secretary;
J. Buck, Treasurer.

Directors—G. Wilgus, S. C. Jones, A. M. Dubois, S. C. Spaulding, E. A. Clark, A. M. Brown, C. L. Brooks, G. H. Baker, and O. Richardson.

The president recommended the following for decussion, which was adopted.

1. CULTURE—Cannot mulching be every where substituted for stirring the soil?

Mr. Clark, of this place, mulched two rows of his pear trees two years ago. That year there was a great deal of leaf blight; many trees died; but the trees mulched were entirely free from blight.

Mr. Earle had noticed that individual trees having any kind of rubbish or stones about them, were uniformly more healthy than others. Mr. Deyo, of

Makanda, had made observations of this matter. The mulching prevents the early falling of the leaf, by keeping up growth, during the drouth of summer, and thus prevents second growth from taking place, which is the prolific source of blight, as such growth will not endure frost. He instanced an orchard in Madison County, on which the owner drew straw to the depth of one foot, at the age of four years. They have never been troubled with early shedding of the leaves. Mr. Walker had mulched some small trees, and they did better than others. Mr. Hinckley, of Coloma, mulched raspberries in the Spring, with corn stalks, one foot deep. It was very advantageous.

Mr. Brooks, of Anna, mulched apple trees by mowing the clover grass and letting it fall on the ground around the trees. They grew better for it. Yet some of these trees died. Has five dwarf pears in blue grass lawn. Mows the grass and packs around the trees. Many others were set at the same time, and kept under clean cultivation. Those in grass kept their leaves—the others lost theirs. They were partly of same varieties. Those in the sward were not shaded by buildings.

Mr. Wilgus, of Richview, had had some experience. Mulched raspberries and currants with good success. Kept the leaves longer. Mulched some peach trees with fresh begasse. Came near losing everything mulched with it. Should be used one year old.

Dr. Childs, of Anna, enquired as to the value of green sawdust. Dr. Farrel said it would kill currants, but was good for gooseberries and raspberries. Mr. Musson said a neighbor mulched strawberries with sawdust, but it failed to do well. Mr. Clark said he covered three or four inches deep with it, and it prevented runners and weeds, and the berries were abundant. Mr. Carpenter said Mr. Carey planted in December, and mulched with sawdust and lost them. But he, Mr. Carpenter, planted in September, and did very well. By mulching could, plant ten months in the year, failing only in July and August.

Mr. Clay said it produced a fungi, that would ruin pears and strawberries. Prefers straw. Believes in mulching pear trees particularly, except the Duchess. It is too vigorous. Mr. Limbert had mulched strawberries, one year old, with corn stalks, thrown lengthwise along the rows. Mulched in February Kept the berries off the ground, and did very well. Mr. Carpenter, seven years ago, planted pear stocks, and budded them. Mulched with half-rotten straw two feet every way, and six inches deep. They have had no cultivation since, and are bearing well. Would not have them plowed, if done for nothing. It was asked whether mulching did not breed mice. Several gentlemen said this was no objection in this region.

Mr Hinckley, sixty miles north, had met with very great loss from this source. Mice are worse on the prairies.

Mr. Mahan spoke of a fine lot of trees killed last season, by a long wet spell. The mulching retained the water, and killed nearly all the trees. They were two-year-old peach trees.

Mr. Jones said he would cultivate crops in the orchard till five years old; after that plow the ground till June, and in Fall mow the weeds. But it is absolutely necessary to prepare the soil deeply. It was asked, "What influence does grass have upon orchards?" It was said that grass roots run very deep, and are injurious. But if the grass is kept mown short the roots will be short.

Mr. Earle said, Mr. Meehan, editor of the "Gardener's Monthly," had given more attention to pear culture than any other person. He recommends sowing bearing orchards to grass; and keeping the whole orchard as a lawn. Mow closely, and leave the grass on the ground. The orchards of our fathers were always in grass, and always bore well. He recommends a limited experiment in this, by every orchardist. Nothing but grass or mulching will save our hills from all washing down.

At this point Messrs. Hadley and Jungers, of Makanda, presented eight specimens of wine from their vineyard.

2. MANURES. Mr. Hadley, of Makanda, had used lime. Mr. Pomery said, R. G. Pardee recommend always to use lime in connection with salt. This is the manure for strawberries Mixes salt with the water that slacks the lime; then sows broadcast.

Mr. Earle said pear culture was very successful near salt water. Plaster of Paris sown on strawberries in Spring, is said to greatly increase the crop Mr. Essex said plaster sown on clover would make a vast difference in the yield. Mr. Earle said, we of the West have wholly neglected this matter of manuring. Mr. Brown recommended ashes for on new ground.

Mr. Richards said clover was found to be the cheapest manure, and will completely renovate the soil. Green crops plowed under are the best dependance for manure. Mr. Spaulding thought that plaster draws the moisture to such an extent that it will supply the place of mulching.

"Has any one tried stable manure upon strawberries?"

Mr. Burnside said he put manure on five rows, and left five rows, in the Fall. It greatly increased the yield.

Mr. Dunlap said, in Champaign County, they winter-cover strawberries with horse manure. It increases the yield, also the weeds.

Mr. Childs, of Jonesboro, said old ground would produce earlier and better berries. Mr. Earle said the same. On old ground they are not so subject to drouth, partly because earlier. It also gives immunity from the white grub for a few years.

Mr. Schick manured two rows. Berries increased in quantity and quality. Mr. Earle asked attention of the members to the use of iron and copperas, as a remedy for pear blight. Mr. Hadley had a bearing pear tree, in Madison County, which took to blighting. He hauled on a lot of straw, and the tree became thrifty and very fruitful.

3. INSECTS. Under this head the Society began with the rabbit. Mr. Essex said to put strychnine in sweet apples, to kill rabbits. Mr. Riehl said they would not eat it—too bitter. His father mixed arsenic with white of an egg, and varnished limbs of trees, cut down for the purpose. This kills them. Mr. Jones said to rub the tree with hogs' liver. They will not touch them.

Mr. Wilgus made a wash of soap, tobacco water, sulphur, and cayenne pepper. It was perfectly successful, and it made the trees look very well.

Mr. Hinkley uses soap and clay. It will stay on three months, and is successful.

Mr. Deyo said Dr. Warder uses cheap coarse paper to wrap the tree.

Mr. Earle said he uses soap and soot.

EVENING SESSION—SECOND DAY.

The Apple Borer was discussed:

Mr. Brown said, that rubbing the tree with a cake of soap was the specific remedy. It should be done in early summer. This is for the round-headed borer, which is prevalent in this region. Mr. Riley said the egg of this borer is deposited in May or June, near the surface of the ground. Plugging the hole is often more effectual than the wire. It lives two years. Mr. Hinkley has used soap. He never found a borer in a healthy tree; and if a tree is unhealthy, they manage to get in—soap or no soap. Mr. Jones had tried most everything—soft soap, etc. —but to little purpose. Last Spring he applied hard soap, and had seen no borers since. Found some of the flat headed borer, which works in the body and limbs of the trees. Dr. Walsh says the soap should be new Made mine of concentrated lye. Should begin to apply it about 20th April. Dig the dirt away, apply soap, and then draw the dirt back.

Dr. DuBois took up fifty trees last Spring, that were set the year before, and set them, half and half, on different sides of the orchard. This Fall all of these trees were badly affected with borers, while the tress between were not. This shows the health of the tree affects the matter much. Mr. Jones said to prevent the flat-headed borer, a small piece of soap should be put into the crotch of the tree. Mr. Richardson has tried ashes piled around the tree, with almost perfect success. Mr. Earle said they should be taken out in August; more easily found, and have not done the damage.

The Peach Borer was considered.

Mr. Jones said the eggs are laid three inches below the ground, in the soft wood. Put a little layer of lime around the tree. It will never go through it. Ashes are almost as good. Mr. Riley also recommended the lime. It should be applied here before the first of May—a quart to a tree. Mr Barker had found that tobacco stems placed in the forks of the tree would prevent them entirely. Mr. Hunter said that in Missouri, a gentleman had a large number of cheap lanterns placed over dishes of soap-suds. He kills thousands of the moths. They are attracted by the lights, and fall into the soap-suds.

In reply to a question, Mr. Mahan said, that many persons had taken away the dirt from the roots of trees to expose them to frost; and a great many had been killed in the region of Centralia.

Mr. Walker said he found this Fall very few worms in the trees, though many had been there. Something had killed them.

Mr. Munger had his trees wormed, leaving the roots bare. Had lost one hundred good trees.

Tansy being recommended, Mr, Walker mentioned a case of trees growing in a bed of tansy. They were as badly troubled with borers as others.

THE APHIS on roots of apple trees, was then considered. It was stated that many apple trees were dying at the root. A specimen of an aphis was shown by Mr. Riley, and recognized as being seen in the orchards that are affected, It occurs on the tree in Summer, and goes to the roots in Winter. He suggests the application of hot water. They produce knots on the roots, and general derangement.

Mr. Limbert had a lot of trees that seemed to lose all their roots; with apples half grown, the tree pushes over with a little pressure. He thought half of all the trees sold here, had this aphis about the roots. They always produce a bluish white mould about the roots.

Some gentlemen suggested lime water and lime about the collar, applied every Spring. Soap-suds also applied on the limbs is good.

Mr. Bulkley said he had found roots three feet long, with the aphis every few inches on all the rootlets. He had also found it in the ground away from all roots.

Mr Clark had put hot water on roots, without damage to the tree—it effectually killed the borer.

Mr. Riley said, they produce their young alive, and one may become a grandmother in four days.

Mr. Baker said, they are found in all fields, and in the woods; the ground is almost white with them, a foot deep. They are found by the hatful on the beech.

THE CODLING MOTH.—It deposits an egg in the calyx of the apple, and produces the apple worm: not very prevalent here yet.

Mr Riley said, it is a very pretty little moth, with golden or purple spots on the end of the wing. The best preventive is to keep the tree smooth, as they make their cocoons under the rough bark: or wrap the tree with rpes of hay, and all will go into that and can be destroyed. The cocoon is small, and the color of the bark. He had seen a specimen here, where the maggot went in on the side of the apple —a thing new to him.

Mr. Colby said, that fires built in the orchard would kill thousands of moths.

Mr. Riley said, the maggot comes out the same day that the apple falls, and often before. The hay bandage is the best remedy. The eggs are laid all through the blooming season.

The Committee on Wines reported, speaking very highly of the qualities of the eight samples presented by Hadley and Jungers.

Mr. Holcomb offered a resolution which was adopted, That a committee be appointed to confer with Mr. C. V. Riley, of Chicago, to engage his services to spend some time here to get an accurate knowledge of the injurious insects of this region, and report results at our next meeting.

THIRD DAY—FRIDAY MORNING.

A fine looking apple tree was brought in with roots on, showing the bark rotten, and parting from the roots. The trees become loose in the ground, and are easily pushed down. It is a great pity that such fine trees should meet such a fate.

THE CURCULIO was discussed.

The subject was opened by Mr. Colby, exhibiting a machine for catching the curculio. It is a "sled" —or rather two sleds—drawn by horses, one on each side of the tree, with large canvas sheets to catch the curculio, when the tree is bunted in passing. He claims that from six hundred to a thousand trees can be visited in an hour. Mr. Colby thinks all the rot of the peaches is caused by the curculio. He is taking steps to patent this machine. It will require two men and two boys to operate it, with two horses.

Mr. Riehl said, that Dr. Hull's machine had been successful, and it was not half so much trouble to catch the curculio as might be supposed. He said if every twentieth row of trees was apricots or plums, all the curculios would leave the peaches and take to the others, and they can there be gathered by the quart. This is Dr. Hull's practice. He does not shake peach trees at all. All the curculios will go to the smooth-skinned fruits.

Mr. Colby said, trees should be trimmed at least two feet from the ground; and trees should be twenty feet apart, so that machines of some kind can be expeditiously used. Hogs should also be pastured in the orchard. They can be starved into eating the green peaches.

Mr. Riley was asked to give information relative to the curculio, which he did, commending the practice of planting rows of plum among the peach. He commended Dr. Hull's inverted umbrella Hogs should pick up the fallen fruit.

Judge Brown made remarks on the history of the effort to destroy the curculio, showing that every effort of naturalists and fruit growers to find some means of destruction, or some preventive of its ravages, had failed; except only jarring the tree, and catching the Turk.

Mr. Baker said he had seen the beetle in the act of depositing the egg in the pear, but had never found the worm.

Mr. Colby had watched the curculio on the tree,

iting the peach. He watched them with a glass nd saw the bills inserted in the peach, and a fer-entation going on, as if it was sucking the juice. n some cases they remained on the same spot two ours. When brushed off he could see no mark; but ith a glass he could see a round hole, different from he puncture in which eggs are deposited. He arked the specimens for observations. In a few ours there was a slight discoloration about this hole. ext day there was a small spot rotten, and the next ay it was half gone with rot.

Mr. Clay and others thought this was one cause of he rot, but not the only cause. There are predis-osing causes, and this is only the exciting cause. he atmosphere has much to do with the rot. Damp arm weather will produce it. He would never ulch peach trees unless on a side hill to prevent ashing. Fruit is always better flavored when rown on dry ground.

Mr. Deyo said, some varieties had rotted on dry and, and some on wet; some in weedy, and some on lean land; some in damp, warm weather, and some n dry hot weather.

The Committee, previously appointed, on Fruit Boxes, reported, recommending "for peaches, a box wenty-two inches long, with heads five by seven nches. For berries: the box manufactured by Colby, crates holding either twenty-four or thirty-six uarts: or half bushel drawers, when that is prefer-d."

Mr. Colby stated that his boxes for berries would old more than a wine quart, and less than a quart, ry measure.

It was voted to advise Mr. Colby to make his boxes ve inches square, and two and three-quarter inches eep, in the inside. The Secretary said this would old sixty eight and three-quarter cubic inches, while he dry quart holds only sixty-seven two-sixteen in hes, and the wine quart fifty-seven and three-quar-er inches.

Mr. Topping, of Makanda, who manufactures the rates said, there should only be one size of package, o avoid confusion.

There was some difference of opinion whether rates should be made to hold twenty-four or thirty-ix boxes; the majority favoring the latter, as gen-rally carrying better.

A long discussion ensued on the size of the peach ox; many desiring a full-measure half bushel box.

Mr. Holcomb moved to amend the report of the Committee on size of the Peach Box, so as to recom-end two sizes of boxes, both to be twenty-two in hes long, and six inches wide; and the one six nches deep, and the other nine inches deep. The ormer holds a full and rounding third of a bushel, nd the other a rounding half bushel. The report as mended, was then adopted.

A vote of thanks was given to the citizens of Cob-den and vicinity, for hospitality.

A vote of thanks was given Mr. C. D. Riley, for mportant information on entomology.

Voted to hold the next Annual Meeting at Carbon-dale.

[Reported for Colman's Rural World.]

Meramec Horticultural Society.

ALLENTON, JAN. 3, 1867.

The Ninety-seventh Meeting of this Society was held in the School House. President Harris called the meeting to order, and thanking the meeting for the aid rendered him in the discharge of his duties during the past two years, introduced John S. Sey mour, the president elect, who took the chair.

The Special Committee on Agriculture presented a report on the Status of Horticultural Societies, as shown by the revised statutes, which was accepted, adopted, and ordered to be printed, with the minutes and also in the daily papers.

The Executive Committee reported subjects for original papers or select reading for the year, as follows:

January—Agricultural Education.

February—The Preservation and Management of our Forests.

March—What shall we Plant to secure a Regular Income.

April—Fruits for Profit on Upland and Lowlands

May—Mulch: What? How? Why? When?

June—Our Aids in the Insect War.

July—The Soils of our District and their Teachings.

August—The Stock and other Crops West adapted to Fruit Farming.

September—Our Winds: Their Effect on our Soil and Vegetation.

October—The Grapes; What they say.

November—Fall vs. Spring Plowing; or Winter Management of the Soil.

December—The Year: Its Teachings.

Report adopted, and referred to Committee to carry out.

The Fruit Committee reported samples of Jeneton by Dr. McPherson, and var. unknown. Jenetons, by Wm. Harris, all fine,

Vegetable Committee reported Pinkeye, White and Black Neshannock Potatoes, by Wm. Harris.

The Wine Committee reported a sample of Concord Wine, made without fermentation on the skins, and without sugar, colorless and thin; giving a good conception of the wine making properties of that grape. By J. S. Seymour, a bottle of wine from the Taylor grape; white, rich, with a fine body and a distinct individual aroma that gives it great character, and indicates this grape taking a proud position among our best wine varieties.

Considerable discussion was had on the "old pear trees" in our country and a list of them to be made out to be visited by the Pear Committee.

Mr. A. Fendler presented the cocoons of an insect found in some ash cord-wood, evidently of a wood-bearing insect. To be sent to Mr. Walsh.

An Essay was read on Agricultural Education by the Secretary.

The President announced the next meeting to be held at the house of L. D. Votaw, Eureka, on the first Thursday of February, at 10 A. M.

WILLIAM MUIR, Secretary.

EDITOR'S TABLE.

Missouri State Horticultural Society.

A summary of the proceedings of this body will be commenced in our next issue, and continued from time to time until finished—they have been unavoidably crowded out of this No.

THE AGRICULTURAL COLLEGE.

In July, 1862, Congress enacted a law, granting to the several States thirty-thousand acres of land for each Representative and Senator in Congress, from such States, for the support of an Agricultural College. Missouri having nine Representatives and two Senators, is entitled to three hundred and thirty thousand acres. By a provision in said Act, any State having the requisite amount of Government land unsold within its borders, shall locate and set apart said land for said purpose. Missouri having enough Government land unsold, the three hundred and thirty thousand acres have been located and set apart for the College Fund.

By a further provision in said Act, all moneys derived from the sales of said land, shall be invested in stocks of the United States or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, and the interest of which shall be inviolably appropriated by each State which may take and claim the benefit of this Act to the endowment, support and maintenance of at least one college, where the leading object shall be *without excluding other Scientific and Classical Studies, and including Military Tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as the Legislatures of the several States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.*

The Act also provides that the State shall be responsible for every dollar of this fund, and if by any contingency it, or any part of it, is lost, the State shall make good the loss. The annual interest shall be regularly applied, without diminution, to the support of such institution, except that a sum not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States. No portion of the fund, nor the interest thereon, shall be applied directly or indirectly under any pretence whatever, to the purchase, erection, preservation, or repair of any building or buildings.

This is the substance of the law upon this matter.

The Constitution of the State of Missouri also requires that the General Assembly shall establish and maintain a Department of Agriculture in connection with the State University.

Now, the question arises—Shall we have two separate Agricultural schools in the State, or shall we unite and consolidate the funds, and make but one? Which will be most useful—which most economical? which will reflect the greatest honor upon the State?

We shall have something to say upon these questions hereafter—but now merely give our readers the law bearing upon the matter.—Something will doubtless be done by the present legislature in establishing the College.

We clip the following from an exchange:

The last number of *Wilkes' Spirit of the Times* contains an editorial statement that in the next issue of that paper will appear an offer from Mr. Leonard Jerome to run Kentucky against any horse in the world. The editor believes that the distance of the race will be anything from a two mile dash to four mile heats. There will also be so large margin in the amounts proposed, that a man of moderate means can meet the lowest, while nobody is likely to allege that the highest is too small.

Officers elected at the Kansas City Horticultural Society at its annual meeting, Dec. 29, 1866, were: President, N. Holmes; Vice President, A. W. Simpson; Secretary, S. W. Salisbury; Treasurer, J. S. Bowman; Directors, Wm. P. Allen, Dr. J. C. F. Malony and J. W. Cook.

OFFICERS OF THE KENTUCKY HORTICULTURAL SOCIETY—1866-67.—President—Thomas S. Kennedy.

Vice Presidents—L. Young, E. D. Hobbs, Dr. J. A. Moore.

Recording Secretary—Ormsby Hite.

Executive Committee—C. C. Cary, S. L. Gaar, H. S. Duncan, Henry Nanz, William Mix, J. W. Walker, Dr. W. M. Allen.

Fruit Committee—Arthur Peter, E. A. Grant, Noble Butler; and ex-officio all ex-Presidents.

Committee on Flowers—Edward Wilson, H. A. Griswold, Dr. Donhoff.

Committee on Wines—Theo. Schwartz, Dr. E Caspari, J. Sacksteder.

Corresponding Secretary—Noble Butler, Louisville, Kentucky.

The *Genesee Farmer* says, "scarcely too much can be said in praise of onions for fowls. They seem to be a preventive and remedy for various diseases to which domestic fowls are liable."

☞BOUND VOLUMES of the *Rural World* for 1866 for sale at the office, price $3.

[Written for Colman's Rural World.]

DEATH.

Out of the infinite we come,
We go unto the same,
The great sleep, broken by our birth—
A little pain, a little mirth,
A little stir upon the earth—
Then the long sleep again. The weight
Of its endurance; the dark womb
Of its arcana; and the gloom
Of mystery, wrapping up our fate,—
We shall not know;
Nor loss of nature's fairy show,
Its many harmonies,
And sweet humanities,
And love of life; and longing for the good;
And clinging to the loved one, tender-wooed;
Nor even the regret of these.
How peaceful is the sleep
Of this content!
How unimpassioned and how deep!
No turmoil to the grave is lent;
Its quiet is supreme.
There's no more sorrow for the heart;
No aching of the brain;
No fitful sleep; no start
In life's hot dream;
No coming on of fear again:
No joy—forever 'scaping;
No treacherous love to sigh for;
No destined evil shaping;
No mis-spent life to cry for;
No prosperous wrong; no vanquished right;
No day; NO NIGHT! F.G.

HEALTHY LITERATURE.

If our writers could get the spleen out of them, it would be a clearing up of the literary atmosphere that it would be most refreshing to behold. If they could cultivate themselves—cure themselves—and then go to work and give themselves—it would be such an improvement as the world never saw before—and it would be worth while taking a paper or buying a book then: the ancient then would be in the shade.

Can we have such health, such sanity, such matter-of-fact, such a feast? We have inklings here and there—and how they are treasured! we keep them immortal. There would then be no such a thing as "trade" in authorship; it would be work—healthy, happy work—work for its own sake, for the happiness it affords—a sort of past-time, yet lucrative, useful, important. Literature then would "pay;" it would benefit amazingly; it would get up a healthy influence—the good views would be communicated.

This is the simplicity of the case; and that is all there is of it. Make the man first: make him sound in body, sound in mind, and sound in his affections. Then we have Napoleons for warriors; Homers and Shakespeares for poets; and Washingtons and Tells for patriots and statesmen. There will be no morbid Byrons; half-morbid Dickenses and Tennysons; fevered and crazed Shelleys, and Lambs, and Swinburne's, much as they may fascinate. There will be pure wells of Wordsworth and Burns, and glimpses from Thoreau and Emerson; pages of Addison and Goldsmith; and Sydneys, and Chaucers, and Howards and Nightingales—but Howards and Nightingales will not be needed—we shall be in the dawn of the better era.

BUCKWHEAT PANCAKE.

Few know how to make it good. It is usually made by mixing flour and water, or flour and milk, and raised with emptyings. When sour, soda is added. This, properly done, will make a fair cake. But it will not make the best—much less uniformly the best. This must be done by another method, which is wholly ours—found out by long experiment and much perplexity. It was done to secure what was more healthful and palatable than bread, and to have it all the year through. We succeeded eminently; and now proceed to lay our mode before the reader:

Take buckwheat flour, three parts; unbolted wheat flour, one part: mix and keep on hand to use when wanted. When wanted, stir of this mixture, as much as it is wished to use, in buttermilk, making the usual batter. When ready to bake, put in a little soda or saleratus dissolved previously in water. Put in enough, so as just to avoid the taste of the alkali. Then bake on a rather hot griddle.

I forgot to say that salt must be added when first mixed. Add a little more than is used in the common mode.

Now a few remarks:

This cake will be light. It will never fail unless your milk is in fault. Some milk is better than others. If you should happen to have a poor quality, though it may seem good, be not discouraged. Try others. Skim-milk is not as good; neither is loppered milk. Vinegar will do, but is poorest of all. It hurts the taste and makes least light of any.

A little more coarse flour may be added, a little more than the quarter; but not less should be given—as it is this which eminently makes it light, beyond what can be done otherwise, making it as light and springy as a sponge.

The past year we have used oatmeal instead of the one-half of the wheat flour. The oat (as well as the wheat) meal is sifted of its coarsest bran. This is optional. The oat seems to improve the cake, if that were possible.—It makes it whiter, and imparts its exhilerating effect, for which the oat is distinguished. We prefer it.

Thus we have pancake all summer—as readily made in summer as in winter—and made at any time at once; there is no waiting for the emptyings to do their work. The soda brings it up at once, and sweetens it always—too much for some, in which case more salt should be added.

Buckwheat flour sometimes sours during the summer. Such flour may be used by this mode, if not hurt otherwise, as the soda at once neutralizes the acidity. We have used flour two summers old—used it the third winter, and found not the least difficulty in eating it. It lacked a little the freshness of new flour—that was all.

Poor flour may be used by this mode that will not do in any other.

There are those who object to buckwheat as producing cutaneous disease. We have never been seriously incommoded this way. There are those who say they have been. Perhaps fancy has something to do in their case. We find buckwheat pancake, such as we make it, the healthiest and most continuously beneficial food we can eat—superior even to stale bread for the dyspeptic. We speak now from a long, thorough experience. Pancake, in the mode we have described, we have eaten for four years with improved health, and especial invigorated spirits. This we lay to the Scotch aliment—the oat, and to the superior lightness of the paste. As for the nutritive properties of buckwheat, it is but a trifle below wheat.

Receipt: Three parts of buckwheat, and one part of coarse wheat, or wheat and oat; mix with butter-milk; add salt; and raise with soda just before baking.

EXCESS.—We always do to excess what we like to do. It is a wonder we don't break down the good, and ruin our faculties in doing it. And it is this excess that makes the good bad: excess is always bad: tacked to the end of things, it gives a bad odor to the whole. Too much love is not good; too much food the same. Sufficient sleep is excellent; an hour too much makes stupid: so does an excess of wakefulness; it also crazes. Excess of labor hurts the body; and excess of mental toil the mind. Avoid excess.

THE ELDEST DAUGHTER AT HOME.—To be able to get dinner, to sweep the room, to make a garment, to tend a baby, would add greatly to the list of a young lady's accomplishments. Where can we behold a more lovely sight than the eldest daughter of a family, standing in the sweet simplicity of her new womanhood, by the side of her toiling, care-worn mother, to relieve and aid her? Now she presides at the table, now diverts half a score of little folks in the library. She can assist her younger brothers in their sports, or the elder ones in their studies; read the newspaper to her weary father, or smooth the aching brow of her fevered mother. Always ready with a helping hand and a cheerful smile for every emergency, she is an angel of love and blessing to the home circle. Should she be called out of it to originate a home of her own, would she be any less lovely or self-sacrificing?

We sin always at a discount on our happiness.

If religion is a sham, it is at least not a sham in one thing—in bringing consolation—especially when the hour of death arrives.

The philosophers were once frightened—when the conflagration of a star took place (in Cassiopeia.) It told them that our earth was subject to the same casualty, and it reminded them of the Bible and of the Judgment day.

Bathing Processes Applicable to Home Treatment.

BY R. T. TRALL, M.D.

Wet-Sheet Packing.—On a bed, or mattress, two or three comfortables or bed-quilts are spread; over them a pair of flannel blankets; and, lastly, a wet sheet (rather coarse linen is is best) wrung out lightly. The patient, undressed, lies down flat on the back, and is quickly enveloped in the sheet, blanket, and other bedding. The head must be well raised with pillows, and care must be taken to have the feet well wrapped. If the feet do not warm with the rest of the body, a jug of hot water should be applied; and if there is tendency to headache, several folds of a cold, wet cloth should be laid over the forehead. The usual time for remaining in the pack is from forty to sixty minutes. It may be followed by the plunge, half-bath, rubbing wet-sheet or towel-wash, according to circumstances.

Half-Pack.—This is the same as the preceding, with the exception that the neck and extremities are not covered by the wet sheet, which is applied merely to the trunk of the body, from the arm-pits to the hips.

Half-Bath.—An oval or oblong tub is most convenient, though any vessel allowing a patient to sit down with the legs extended will answer. The water should cover the lower extremities and about half of the abdomen. While in the bath, the patient, if able, should rub the lower extremities, while the attendant rubs the chest, back and abdomen.

Hip or Sitz-Bath.—Any small-sized wash-tub will do for this, although tubs constructed with a straight back, and raised four or five inches from the floor, are much the most agreeable. The water should just cover the hips and lower part of the abdomen. A blanket should be thrown over the patient, who will find it also useful to rub or knead the abdomen with the hand or fingers during the bath.

Foot-Bath.—Any small vessel, as a pail, will answer. Usually the water should be about ankle deep. During the bath, the feet should be kept in gentle motion. Walking foot-baths are excellent in warm weather, where a cool stream can be found. The hot-and-cold foot-bath consists in holding the feet in water as warm as can well be borne—five, ten, or fifteen minutes—then dipping them a moment in cool or cold water, and wiping dry.

Rubbing Wet-Sheet.—If the sheet is *drippingly* wet, the patient stands in the tub; if wrung so as not to drip, it may be used on a carpet, or any place. The sheet is thrown around the body, which it envelops below the neck; the attendant rubs the body over the sheet (not with it), the patient exercising himself at the same time by rubbing in front.

Pail Douche.—This means simply pouring water over the chest and shoulders from a pail.

Stream Douche.—A stream of water may be applied to the part or parts affected, by pouring from a pitcher or other convenient vessel, held as high as possible; or a barrel or keg may be elevated for the purpose, having a tub of any desired size. The power will be proportional to the amount of water in the reservoir.

Towel or Sponge-Bath.—Rubbing the whole surface with a coarse, wet towel or sponge, followed by a dry sheet or towel, constitutes this process.

The Wet Girdle.—Three or four yards of crash toweling make a good one. One-half of it is wet and applied around the abdomen, followed by the dry half to cover it. It should be wetted as often as it becomes dry.

The Chest Wrapper.—This is made of crash, to fit the trunk like an undershirt, from the neck to the lower ribs; it is applied as wet as possible without dripping, and covered by a similar wrapper, made of Canton, or light woolen flannel. It requires renewing two or three times a day.

The Sweating-Pack.—To produce perspiration the patient is packed in the flannel blanket, or other bedding, as mentioned in the Wet-Sheet Pack, omitting the wet-sheet. Some persons will perspire in less than an hour: other require several hours. This is the severest of the water-cure processes, and, in fact, is very seldom called for.

The Plunge-Bath.—This is employed but little, except at the Establishments. Those who have conveniences will often find it one of the best processes. Ay tub or box holding water enough to allow the whole body to be immersed, with the limbs extended, answers the purpose. A very good plunge can be made of a large cask cut in two near the middle. It is a useful precaution to wet the head before taking the bath.

The Shower-Bath—This needs no description. It is not frequently used in treatment, but is often very convenient. Those liable to a "rush of blood to the head," should not allow much of the shock of the stream upon the head. Feeble persons should never use this bath until prepared by other treatment.

Fomentations.—These are employed for relaxing muscles, relieving spasms, griping, nervous headache, etc. Any cloths wet in hot water and applied as warm as can be borne, generally answer the purpose; but flannel cloths dipped in hot water, and wrung nearly dry in another cloth or handkerchief, so as to steam the part moderately, are the most efficient sedatives.

Injections.—These are warm or tepid, cool or cold. The former are used to quiet pain and produce free discharges; the latter to check excessive evacuations and strengthen the bowels. For the former purpose a large quantity should be used; and for the latter purpose a small quantity.

General Bathing Rules.—Never bathe soon after eating. The most powerful baths should be taken when the stomach is most empty. No full bath should be taken less than three hours after a full meal. Great heat or profuse perspiration are no objections to going into cold water, provided the respiration is not disturbed, and the patient is not greatly fatigued nor exhausted. The body should always be comfortably warm at the time of taking any cold bath. Exercise, friction, dry wrapping, or fire may be resorted to, according to circumstances. Very feeble persons should commence treatment with warm or tepid water, gradually lowering the temperature.

General Dietetic Rules.—The food should always contain such relative proportions of bulk and nutriment as will keep the motions of the bowels at all times free, easy, and natural. Graham bread, wheaten grits, hominy, wheat-meal biscuits, with good fruits, constitute the essentials of the best dietary system. Other farinaceous preparations and vegetables may be used for variety. Those who use animal food should eat fresh meat, but never more than once a day. All gravies, greasy meats, swine-flesh, shell-fish, and old cheese should be rigidly abstained from. All seasonings are more or less injurious, hence the only rule with regard to them is, *the less the better.* Light puddings may be made of Graham crackers, cracked wheat, hominy, coarse Indian meal, and rice with sweet fruits, raisins, figs, sweet apples, etc. Comparatively healthful pastry may be made of Graham flour, shortened, if desired, with mealy potatoes, with green or dried fruits seasoned with sweet fruits. Excellent bread may be made as follows: Wet the meal (Graham flour) with water, into a rather soft dough, then roll it into very thin biscuits, and bake in a quick oven. It should be made fresh every day, and may be eaten fresh, whereas fermented bread should never be eaten till one day old, and is never to be recommended.

Domestic happiness is the nearest door to heaven.

DOMESTIC DEPARTMENT.

TO MAKE THE BEST SAUSAGES.—30 lbs. of chopped meat; 8 ozs. salt; ½ an oz. of salt-petre; 2½ ozs. pepper: 2 teacups of sage, and 1½ cups of sweet marjorum. Pass the two last through a fine sieve. If you prefer it, thyme and summer savory may be substituted for the latter.

PRESERVING SAUSAGE MEAT.—Pack the meat in stone jars until nearly full, then fill the jar up with melted lard; cover with a linen cloth, then tie a brown paper over the top.

PRESERVING SAUSAGES.—After the sausages have hung three weeks in a dry, moderately warm room, pack them in a box or cask between layers of clean, dry oats. In this way they will keep dry and moist until warm weather. Keep the box in a cool, dry place.

KEEPING MEATS FRESH.—With a little care all kinds of fresh meat—pork, beef, poultry, fish, etc., may be kept for a long time without losing its fresh flavor. Cut the meat into suitable pieces for cooking, whether for steaks, baking or boiling; then lay it where it will freeze hard. When frozen place it in a tub or box and bury it in snow or ice, with a temporary covering to keep it from melting in ordinary winter weather. If a thaw comes on, cover with an old blanket or straw to exclude the air.

A GOOD INDIAN PUDDING.—Take a small quantity of milk; add a little salt; set it on the stove, and let it come to a boil; stir in Indian meal until quite thick, then add cold milk enough to make it cold and thin, a little sugar and a number of sweet apple quarters. Bake in a slow oven three hours. The oldest skim milk that is sweet makes the nicest pudding, and care must be taken to make the pudding thin in order to have it "whey off," which is considered nicer than when thick and no whey.

N. J. COLMAN, Esq., *President Farmers' Insurance Company:* A few days ago I insured in your Company a *mare* for Mr. Mugford of this place. Next night the stable was broken open—the halter cut, and in the morning he found her in the lot. I suppose the thieves thought it was too risky an operation to take her, seeing the Company's brand on her foot. Yours, &c.

JOHN STEPHENS, Agent.

Normandy, St. Louis County, Mo.

[Reported for Colmans' Rural World.]

METEOROLOGICAL TABLE.

BY A. FENDLER, ESQ., ALLENTON, MO.

DECEMBER, 1866.

Thermometer in open air.

7 A.M.	2 P.M.	9 P.M.	Mean of Month.
26.5	37.2.	29.7	31.1

Maximum temp. 56.5, 4th 2 P.M.

Minimum " —1.0, below zero, 30th 7 A.M.

Range, 57.5

Barometer—height reduced to freezing point.

7 A.M.	2 P.M.	9 P.M.	Mean of Month.
29.573.	29.552	29.575.	29.567

Maximum, 29.963, 12th 7 A.M.

Minimum, 28,979, 22d 9 P.M.

Range, .984

Rain on the 3d, 5th, 7th, 8th, 15th, 23d; together, 2.78 inches.

Snow on the 15th, 29th; together, 1½ inches.

Mean temperature of the year 1866 as follows:

7 A.M.	2 P.M.	9 P.M.	Mean.
44.1	61.9	47.8	51.3

Maximum, 97.0 August 11th.

Minimum—14.0 below zero, February 16th.

Range, 111.0

THANK GOD FOR THAT.—Lady Huntington was trying to lead one to Christ. To her urgent entreaties he said:

"Oh, it is of no use! I am lost! I am lost!"

"Thank God for that!" she said.

"Why?" exclaimed the man in astonishment.

"Because," said Lady Huntington, "Christ came to save the lost, and if you are lost, He is just the one that can save you."

☞We invite the attention of our readers to the advertisement of Prize Blooded Stock, in this column. Those desiring to improve their stock, should send for a circular.

NEW ADVERTISEMENTS.

Situation in a Seed Store Wanted, page 44
Grapes and Grape Vine Cuttings, Dr. Schroder, Bloomington, Ill., - page 45
Prize Blooded Stock, H. C. Graff, Maysville, Ohio, - - - page 44
Clinton Grapes, Rhubarb, Cherries, Seedlings, Roses, &c., Hoopes, Bro., & Thomas, West Chester, Pa.. - page 45
Berkshire Pigs, E. A. Riehl, Alton, Ill., page 45
Champion Reaper & Mower, and Agricultural Implements, &c., Barnum & Bro., page 46
Kirby Reaper and Mower, D. M. Osborne & Co., Manufacturers. Dick Ransom, Gen. South-western Agent, St. Louis, page 48

WANTS A SITUATION AS SHOPMAN in a Seed Store; has a thorough practical knowledge of the business, both European and American. Has first-class reference.

Address, SEEDS, office of this paper.

PRIZE BLOODED STOCK!

YORKSHIRE SOWS, in pig. Pigs of same.
CHESTER CO. WHITE SOWS, in pig.
CHESTER Pigs.
5 Superior BERKSHIRE SOWS in pig, to my imported Boar (Windsor Duke).
Improved SHORT HORN Bulls, Cows, Heifers, and Calves, of most fashionable blood in America.
40 head of Grade and Full Blood CASHMERE Goats.
20 SPANISH MERINO Ewes in lamb to my stock Buck (Vermont Boy).
Over 100 different varieties of FANCY POULTRY AND STOCK.

All stock carefully boxed and delivered to Express Co., with food, &c. Safe arrival guaranteed. Letters of inquiry must contain 3 cent stamp.

Address, H. C. GRAFF,
1t Box 400, Maysville, Col. Co., Ohio.

Willcox & Gibbs' Sewing Machine.

"Its seam is stronger and less liable to rip in use or wear than the Lock Stitch."

("Judges' Report" at the "Grand Trial.")

Send for the "Report" and samples of Work, containing *both* kinds of stitches on the same piece of goods. Address,

M. W. LEET,
General Agent, No. 11 North Fifth St.,
Saint Louis, Mo. opposite Court House

St. Louis Wholesale Market.

Corrected for COLMAN'S RURAL WORLD, by

SHRYOCK & ROWLAND,
Successors to W. P. & L. R. Shryock,
COMMISSION MERCHANTS
COTTON & TOBACCO FACTORS,
And Agents for the sale of Manufactured Tobacco.
210 Levee and 216 Commercial St., St. Louis.
Particular attention paid to the purchase of Plantation Supplies and General Merchandise.

January 22, 1867.

Cotton—28c to 31½ ₱ lb.
Tobacco—Lugs, $2.75 to 3.25 ₱ 100 lbs.
Shipping leaf, $6.00 to 10.25.
Manufacturing leaf, $9.00 to 30.00.
Hemp—Hackled tow, $145 ₱ ton.
Hemp, $150 @ 160.
Lead—$8.00 ₱ 100 lbs.
Hides—Dry salt, 16½c; Green do. 8¼ ₱ lb.
Drv flint, 18½c ₱ lb.
Hay—$18.50 @ 21.00 ₱ ton.
Wheat—Spring, $2.15 to 2.40, ₱ bush.
Winter, $2.25 to 2.85 ₱ bus.
Corn—78c to 82 ₱ bus.
Oats—64c to 67 ₱ bus.
Barley—Spring, 90c to 1.25. Fall, 1.80 to 2.05
Flour—Fine, $7 to 8.00 ₱ bbl.
Superfine, $9 to 10.00 ₱ bbl.
XX, $11.50 to 13 50 ₱ bbl.
Ex. Family, $14 to 15 ₱ bbl.
Butter—Cooking. 15c to 20; table, 30 to 36, ₱ lb
Eggs—33c, ₱ doz., shipper's count.
Beans—Navy, $3.60 @ 3.80, ₱ bus.
Castor, $2.00 ₱ bus.
Potatoes—80c to 90 ₱ bus.
Salt—per bbl. $3.20. G. A., sack, 2.50 to 2.65
Onions—$3.75 to 4.00 per bbl.
Dried Fruit—Apples, $1.75 to 2.20 ₱ bus.
Peaches, $3.50 to $5 ₱ bus.
Cranberries—$14.00 per bbl.
Corn Brooms—$1.25 to 4.00 per doz.
Groceries—Coffee, Rio, 26c to 29 ₱ lb
Tea, $1 25 to 2.00 ₱ lb.
Sugar, N. O., 12c to 14 ₱ lb.
Crushed & Refined, 16½c to 18¼ ₱ lb
Molasses, N.O., 65c to 90 ₱ gal.
Choice Syrups, $1.28 to 1.65, ₱ gal.
Soap—Palm, 8c to 9 ₱ lb.
Ex. Family, 9½c ₱ lb.
Castile, 14c ₱ lb.
Candles—16½c to 28 ₱ lb.
Lard Oil—$1.20 @ 1.30 ₱ gal.
Coal Oil—50c ₱ gal.
Tallow—9½c to 9¾ ₱ lb.
Beeswax, 37c to 38 ₱ lb.
Green Apples—Choice Jenetons, $6.00, ₱ bbl.

ST. LOUIS LIVE STOCK MARKET.
JANUARY 23.

Beeves are quiet and steady. Hogs are scarce, but improving. The market is somewhat unsettled. Sales show full prices.

Broadway Yards—Sales of Cattle ranged from $4. 25 to 6.40. Sheep—$4. Hogs—No Sales.

Ashbrook's Yards—Sales of Cattle ranged from $4.60 to 6.00. Hogs—$6.80.

PREMIUMS TO CLUB AGENTS.

To any person sending us the names of Four Subscribers and SIX DOLLARS, we will send postage prepaid, TWO DOZEN PLANTS of the SAINT LOUIS RASPBERRY, or TWO DOZEN PLANTS of DOOLITTLE'S IMPROVED BLACK CAP RASPBERRY, or SIX well rooted CONCORD GRAPE VINES.

To any person sending a Club of TEN and FIFTEEN DOLLARS, we will send free, THREE TIMES the number of any one of the above Premiums, or ALL THREE of the abovenamed Premiums, as the Agent may choose.

To any person sending us a Club of FIFTY Subscribers at Two Dollars each, we will deliver, suitably packed at any express office or other place in St. Louis, one of WILLCOX & GIBBS' splendid FAMILY SEWING MACHINES, worth $58.

Or, for Seventy-five Subscribers, at our lowest club rates, viz., $1.50 each, we offer the same Premium.

The WILLCOX & GIBBS' FAMILY SEWING MACHINE, is one of the most popular in the country; is very simple and strong, uses a straight needle, runs very light, and is warranted in all respects.

ANOTHER SPLENDID PREMIUM.

We offer as an additional Premium, one of WHEELER & WILSON'S SEWING MACHINES, worth in St. Louis, SEVENTY-FIVE DOLLARS, with gla cloth presser, hemmer, braider and corder, all complete and warranted, to any person who will send us Seventy-five Subscribers at our lowest club rates, viz., $1.50 each. Or the same premium to the getter up of a club of Fifty, at $2 each. Here is a chance for every one to get a No. 1 Sewing Machine, at a cheaper rate than ever before offered. We are determined to offer such inducements that the *Rural World* shall circulate in the family of every reading farmer in the West.

If any agent fails to make up his club to the full size, he can send on such names as he can get, and the balance in money, and the Sewing Machine will be delivered to him or her. Here is a good chance for doing good and being well rewarded for it.

PREMIUM IN TREES AND PLANTS.

There are many who wish to plant Fruit Trees and Small Fruits. To such we will say that we will pack, and deliver at any Express or other office in St Louis, the following special assortment of Fruit Trees and Small Fruits upon their sending to us the names of Thirty Subscribers, at $1.50 each. This assortment will fill the requirements of a small family.

25 apple trees, best early and late.
6 peach " "
6 dwarf pear, " "
6 grape vines, 3 varieties.
12 currants, 2 varieties.
12 gooseberries.
12 Lawton blackberries.
12 Doolittle raspberries.
12 St. Louis "
50 strawberries assorted.

It is not necessary that those who compose a club should receive their papers at the same Post-office.

Clubs can at any time be enlarged.

Single subscribers who remit $2 for their subscriptions, can afterwards send the names of three more subscribers and four more dollars, and thus form a club of four for six dollars.

Be careful to give the name of the post-office for each subscriber

AN INTERESTING QUESTION.

What class of people will be most susceptible to attacks of Cholera?

Evidently those affected with any disease of the stomach, liver, or any of the organs appertaining to digestion. This class of persons will undoubtedly be more liable to contract this disease than those possessed of strong and healthy digestive organs.

The question then naturally arises, how shall we restore and keep these organs in a healthy and normal condition? We answer, by attention to diet, avoiding all undue excitement, using moderate exercise, avoiding all intoxicating drinks, no matter in what form presented, and by the use, according to directions of that great strengthening tonic,

Hoofland's German Bitters,

Prepared by Dr. C. M. JACKSON, Philadelphia.

This Bitters is a compound of Fluid Extracts. The roots and herbs from which it is made are gathered in Germany, and their virtues, in the form of extracts, extracted by one of the most scientific chemists and pharmaceutists this country affords. It is

NOT A LIQUOR PREPARATION,

In any sense of the word; contains no whisky, rum, or any other intoxicating ingredients, and can be freely used in families, without any fear or risk of those using it contracting the disease or vice of intemperance. We wish this fact distinctly understood, as many are apt to confound this Bitters with the many others before the public, prepared from liquor of some kind. During the

Cholera Season

Of 1849, this Bitters was extensively used throughout the entire country AS A PREVENTIVE,

And we have not heard of a single instance in which this Bitters was used, where the persons suffered from any of the symptoms of Cholera.

THE GREAT STRENGTHENING TONIC

HOOFLAND'S GERMAN BITTERS,

WILL CURE DEBILITY resulting from any cause whatever. Prostration of the System induced by severe Hardships, Exposure, Fevers, or Diseases of Camp Life.

Soldiers, Citizens, Male or Female, Adult or Youth, Will find in this Bitters a pure Tonic, not dependent on bad liquors for their almost miraculous effects.

This Bitters will cure the most severe cases of

DYSPEPSIA,

And Diseases resulting from Disorders of the Digestive Organs, and is the only sure, certain and safe remedy for LIVER COMPLAINTS. All are more or less affected during the spring and fall with torpidity of that important organ of digestion, the Liver. This Bitters, without containing any preparation of mercury, or by purging, acts powerfully on this organ, excites it to a healthy and lively action, and gives a tone to the whole system, hence,

HEALTH, ENERGY AND STRENGTH take the place of SICKNESS, DEBILITY and LASSITUDE.

☞Hoofland's German Bitters,

Will cure every case of Chronic or Nervous Debility, Diseases of the Kidneys, and Diseases Arising from a Disordered Stomach.

Observe the following symptoms resulting from disorders of the digestive organs:

Constipation, Inward Piles, Fullness of Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or Weight In the Stomach, Sour Eructations, Sinking or Fluttering at the Pit of the Stomach, Swimming of the Head, Hurried and Difficult Breathing, Fluttering at the Heart, Choking or Suffocating Sensations When in a Lying Posture, Dimness of Vision, Dots or Webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Back, Chest, Limbs, &c., Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil, and Great Depression of Spirits.

BE SURE YOU GET THE GENUINE.

Prepared by Dr. C. M. Jackson, Philadelphia, with his signature on the wrapper and his name blown in the bottle. There are counterfeits in the market.

Price, Single Bottle, $1, *or half a dozen for* $5.

Should your nearest druggist not have the article, do not be put off by any of the intoxicating preparations that may be offered in its place, but send to us, and we will forward, securely packed by express.

Principal Office and Manufactory, No. 631 Arch St., Philadelphia, Pa.

CHAS. M. EVANS, Proprietor,

mar15—1y [Formerly C. M. JACKSON & CO.]

CATALOGUE READY.

We have just issued our Fall Catalogue of Fruit and Ornamental Trees and Plants, which will be mailed to any address on receipt of postage stamp. COLMAN & SANDERS,
St. Louis, Mo.

GRAPES!

Grapes, Grapes, Grapes.

300,000 Concord, 100,000 Catawba

From vines never mildewed or rotted.

20,000 Hartford, 10,000 Delaware; Norton's Virginia, Diana, Clinton

And all other good sorts of Grape Vines.

Currant, Raspberry, Strawberry

and other plants, cheaper than anywhere else for sale. Send stamp for Catalogue and Essays on Grape Culture, to DR. H. SCHRODER,
feb6t Bloomington, Ill.

1,000,000
GRAPE VINE CUTTINGS

FOR SALE.

Norton's Virginia, $12 for 1000 cuttings; by 10,000 or more, only $10.

Concord and other sorts cheaper.

DR. H. SCHRODER,
feb6t Bloomington, Ill.

CLINTON GRAPES.
LINNÆUS RHUBARB.

CHERRIES, 1 year old.

SEEDLINGS, Roses, &c.

The attention of the trade is especially invited to our

Heavy stock of the above,

As well as to our regular assortment of

FRUIT AND ORNAMENTAL TREES, SHRUBS, VINES, &c. &c.

Our facilities for shipment to the West are unexcelled. Wholesale and Retail Catalogues furnished on application to

Hoopes, Bro., & Thomas,
Cherry Hill Nurseries,
feb4t WEST CHESTER, PA.

☞ BERKSHIRE PIGS!

3 months old, $25 per pair. One fine Boar, 5 months old, $20. E. A. RIEHL, Alton, Ill.
1t

PREMIUM CHESTER COUNTY WHITE PIGS--Constantly on hand a well selected stock of the purest Breed Chester County Whites. Having paid particular attention to the breeding of these pigs, will guarantee all stock to be of the purest and finest quality. These pigs make more weight for the feed consumed than any other breed, frequently weighing from 5 to 7 hundred pounds from 16 to 18 months old. For sale by GEO. B. HICKMAN, West Chester, Chester Co., Pa. N.B.—Pigs shipped by Express to all parts of the United States at reasonable prices. Dec1—6m

10,000 Norton's Virginia!

Grown from Layers, extra strong.

Also,

CONCORD, CLINTON,
HARTFORD PROLIFIC, &C.

At low rates, by the hundred or thousand. Send for Price List. Address, HENRY MICHEL,
Jan6t 207 North 2d St., St. Louis, Mo.

COLMAN & SANDERS,
ST. LOUIS NURSERY,

On the Olive Street Road, 5 miles West of the Court House.

It contains the largest and choicest stock of

Home Grown

FRUIT TREES,

Shade Trees, Ornamental Shrubs, Evergreens,

GRAPE VINES, SMALL FRUITS, &C.

IN THE WEST.

The varieties are all guaranteed to be adapt to our soil and climate.

The City Office of the Nursery is at 97 Chesnut St. in the Office of "COLMAN'S RURAL WORLD."

Address, COLMAN & SANDERS,
St. Louis, Mo.

RARE GARDEN SEED.

I was the original introducer throughout the North of the **HUBBARD SQUASH**—the best of all Winter squashes; the American **TURBAN SQUASH**—the best of all Fall squashes; Boston **CURLED LETTUCE**—the most ornamental of all the Lettuce family; the Marblehead **MAMMOTH CABBAGE**—THE LARGEST CABBAGE IN THE WORLD—sometimes weighing 60 lbs. a head, and numerous other rare vegetables. I now wish to introduce these and other choice garden seeds, including 125 varieties of my own raising, throughout the South. Catalogues, containing a list of these varieties, some of which are not to be found in the Catalogues of any other seedsman, sent FREE to all applicants.

My Marblehead Mammoth Cabbage has been grown in Louisiana and the West Indies for three years by experienced gardeners, and they write me that they head well and grow at least as large again as any other variety of cabbage.

JAS. J. H. GREGORY,
jan4t Marblehead, Mass.

The St. Louis Raspberry

Has justly earned the reputation of being the hardiest, most productive and profitable red raspberry in cultivation in the vicinity of St. Louis. Sent by mail, postage prepaid for $2.00 per dozen, by Colman & Sanders, St. Louis Nursery.

TENBROOK, PIERCE & CO.,
Sweet Potato Culturists,

Have on hand a large stock of NANSEMOND and BERMUDA SWEET POTATOES, for Seed, which we offer to those wanting seed the coming spring, at $13 per bbl. of 3 bushels each. ☞A reasonable discount on large orders and to seed dealers. Our facilities are such, that we can promptly foward ALL ORDERS with which we may be favored. For further particulars, address, TENBROOK, PIERCE & CO.
Rockville, Ind., or South Pass, Union Co., Ill.
feb and mar

J. M. Jordan's Nursery.

Concord Vines, No. 1, $15 per 100, $120 per 1000.
" " " 2, $10 " $75 "
Clinton " " 1, $10 "
Taylor or Bullitt Vines, $7.50 per 100.
Apple Trees, $20 per 100.
Peach " $25 "
Cherry " $40 "
Dwf. Pear Trees, $35 per 100.
Stand. Pear, $40 per 100.
Victoria and Linnæus Rhubarb, $10 per 100.
Osage Orange, large plants, $5 per 1000; small plants, $3.
Asparagus, Blue Top Giant, strong roots, $7.50 per 1000.

Send for a Catalogue, or come and see the stock at the Nursery, on Grand Avenue, north of Cass Ave., St. Louis, Mo. J. M. JORDAN.

BARNUM & BROTHER, No. 25 South Main St., Saint Louis, Mo., Call attention to the fa

THAT THEY ARE NOW PREPARED TO FURNISH

LANDRETH'S Celebrated GARDEN SEEDS

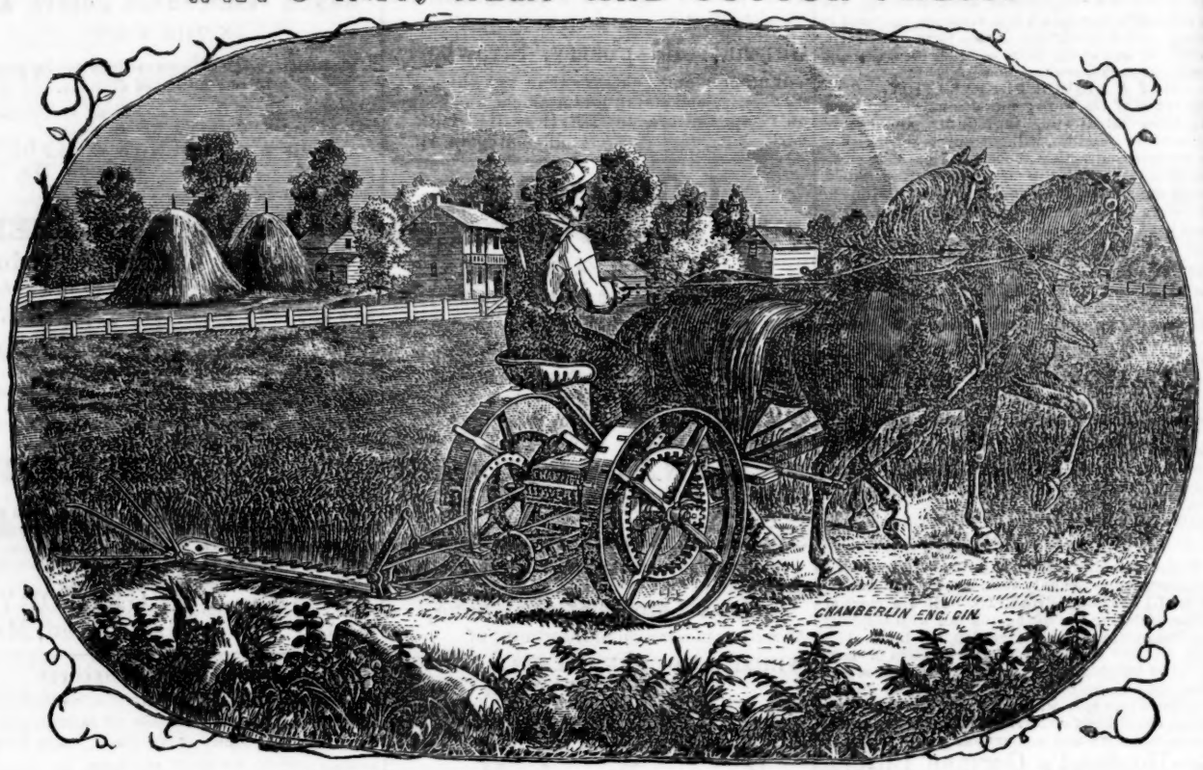
The reputation of these Garden Seeds is established, and the purchaser can rely with reasonable certainty on being supplied with wh
our label indicates—FRESH AND GENUINE SEEDS. Also Agents for

Straub's Wheat Flouring, Corn Meal and Feed, Portable Queen of the South

GRIST MILLS,

5000 of which are now in use West and South. We have also the exclusive sale in this market of

WAY'S HAY, HEMP AND COTTON PRESS.



AGENTS FOR THE
CHAMPION COMBINED REAPER AND MOWER,
WHICH TOOK THE FIRST PREMIUM, AT THE MISSOURI STATE FAIR, 1866.

Also, for Vandiver's Mo. Corn Planter,
Which took the First Premium.

Straub's Grist Mill, which took First Premium.

ALLEN'S COTTON PLANTER.

BUCKEYE SULKY CORN PLOW.

BRANSON'S HAND LOOM, AND CELEBRATED ROCK ISLAND STEEL PLOWS.

Also, prepared to supply

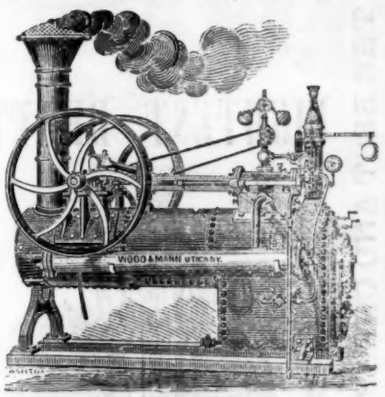
Pitt's Thresher's, Avery & Calhoun Plows, Corn Shellers, Cutting Boxes,

LEATHER AND RUBBER BELTING,

Drag Saws, Horse Powers, Champion and Putnam Wringers, Missouri Family Washing Machine, and all kinds of the most approved patterns of implements and machines.

WOOD & MANN STEAM ENGINE CO.'S CELEBRATED PORTABLE AND STATIONARY

Steam Engines & Boilers.



From 4 to 35 horse power.

Also, PORTABLE SAW MILLS

We have the oldest, largest and most complete works in the United States, devoted exclusively to the manufacture of Portable Engines and Saw Mills, which, for simplicity, compactness, power and economy of fuel, are conceded by experts to be superior to any ever offered to the public.

The great amount of Boiler room, fire surface, and cylinder area, which we give to the rated horse power, make our Engines the most powerful and cheapest in use; and they are adapted to every purpose where power is required. All sizes constantly on hand, or furnished on short notice.

Descriptive Circulars with Price List, sent on application.

WOOD & MANN STEAM ENGINE CO.,
Utica, N. Y.
Branch Office, 96 Maiden Lane, N. Y. City.
july1—1y

DR. JACKSON'S
BALSAM OF LUNGWORT.

The great remedy for Coughs, Colds, Sore Throat, Hoarseness, Spitting of Blood, Soreness of the

CHEST AND LUNGS,
AND
Consumption.

This old tried medicine stands higher in reputation than all others; its effects are prompt and certain, and it has cured more bad cases than all other medicines put together. Don't fail to give it a trial, and be convinced, as delays are dangerous.

Price One Dollar a bottle.

COLLINS BROTHERS,
ST. LOUIS, MO.

SOLE PROPRIETORS.

ITCH! ITCH!!

SALT RHEUM! Dr. JACKSON'S ITCH OINTMENT. SALT RHEUM!

Will cure the ITCH or SALT RHEUM,

in a few applications. It also cures prairie Scratches, Chilblains, Ulcers and all Eruptions of the skin where other remedies have been tried in vain, cures speedily and thoroughly. Price 50 cents a box. Sold by all druggists. By sending 60 cents in a letter to COLLINS BROTHERS, S. W. cor. 2d & Vine streets, St. Louis, Mo., it will be sent by mail free of postage.

April 15-1y.

THE CELEBRATED STALLION

BRONX!

Will make the present season at my farm, originally known as the Harris or Williams' place, 2 1 2 miles from Bailey's Station, I. M. R. R., Jefferson county, Mo., 1 1-2 miles from Judge Becket's place.

TERMS.

$15 in advance—no insurance. Mares from a distance will be pastured or grained as may be desired, but accidents or escape will be at owner's risk.

For further information address Wm. Walker, Bailey' Station, I. M. R. R., Mo.

He was presented to Lieut. Gen. W. T. Sherman, U. S. A., by citizens of the State of Ohio, at the close of the war, and sold as the annexed copy of Bill of Sale will show, to me, August 10th, 1866.

HEADQU'TERS MILITARY DIVISION OF THE MISSISSIPPI
SAINT LOUIS, MO., August 10, 1866.

Sold this day to William Walker, late Captain V. R. C., in command of the U. S. Powder Magazines; now of Hanover Post Office, Jefferson Co., Mo. My horse Bronx. Title warranted. This horse was bred at Lancaster, Ohio, by Messrs. Reber & Kutz; is full blood Racer, sired by Monarch out of Lady Canton. He was bought for $1,500, and presented me by personal friends at the close of the war, but before accepting him, I having no use for a Stallion, made a written stipulation, that if inconvenint to keep him, I should sell, which I now do.

WM. T. SHERMAN, Lieut. Gen.

DESCRIPTION AND PEDIGREE.

BRONX was raised by Reber & Kutz, of Lancaster, Ohio. He is eight years old; a blood bay, without white; full sixteen hands high; good bone; well proportioned, and in all respects is a superior horse. His colts will equal those of any horse in Ohio. He took the first premium in the class of Thoroughbreds at Cincinati in 1857; and the Sweepstakes, as best stallion of any age or breed, over some twenty-five of the best horses in the State, at the State Fair at Zanesville, in 1859. He also took a $50 premium as the best of his class, and a $100 premium in Sweepstakes, as the best of all classes, over a large number of very fine stallions, at the State Fair at Cleveland, 1862.

He was got by Imported Monarch, out of Lady Canton, by Imported Tranby; 2d dam, Mary Randolph, by Gohanna; 3d dam by Independence; 4th dam, Meg of Wapping, by Imported Bedford; 5th dam, Imported Alexandria, (bred by Mr. Kid;) 6th dam, by Woodpecker; 7th dam by Phlegon; 8th dam, Lord Egremont's Highflyer Mare, &c., &c. Gohanna was got by Sir Archy, out of Merino Ewe, by Imported Jack Andrews; Independence was by Quicksilver, his dam by Handel, grand dam by Spanking Roger, out of the Imported mare Polly Peachem. &c. Quicksilver was by Hart's Imported Medley, [see Vol. xi, page 194, American Turf Register.] See Turf Register for pedigree of Imported Monarch and Tranby. This pedigree is unsurpassed for richness.

MONARCH,

The sire of BRONX, (and whom he very much resembles,) was a very remarkable horse: his description may be found in the American Turf Register, Vols xi and xiv, written by Wm. T. Porter, the editor, and may not be uninteresting to horsemen. Wade Hampton frequently refused $20,000 for him. jan1-6t

The Lamb Family
KNITTING
Machine!
Knits Hosiery

OF ALL SIZES,

Forming the HEEL and TOE complete,

Also, FANCY FABRICS of every variety. In fact every article of Knit Fabric in use in the family, can be manufactured on the Machine.

For Circular and SAMPLE STOCKING, address with stamp, CLARK & LEET,
Nov. 15 No. 11 North 5th St., Saint Louis, Mo.

PLANT & BRO.,
ST. LOUIS
Agricultural Warehouse
AND
SEED STORE,

(Established 1845, by Wm. M. Plant.)

Sign of the Gilt Plow.

116 & 118 South Main St.,

Between Walnut and Elm:

Also, No. 820 NORTH FOURTH STREET (Fronting on two streets), & 823 BROADWAY.

Keep the Largest and Best Assortment of

PLOWS, HARROWS,

Corn and Seed Planters and Drills,

Cultivators,

REAPERS, MOWERS,

Horse Rakes,

Horse Powers,

Threshers, Farm Wagons,

Portable Farm Engines,

SAW MILLS,

Leather & Rubber Belting,

Hose, Rubber and Hemp Packing,

Lace Leather,

HOOKS, RIVETS, AND PICKS,

Portable Farm Grist Mills,

PUMPS,

Corn Shellers, Cider Mills,

WHEELBARROWS,

Straw, Hay & Corn Stalk Cutters,

CHURNS, STORE TRUCKS,

Washing Machines,

Clothes Wringers,

Spades, Shovels, Forks, Hoes, &c.

GARDEN, GRASS, AND OTHER SEEDS,

Cotton Gins, Jennys and Wool Carding Machines,

McGAFFEY'S COTTON SEED PLANTER

Sorgo Mills & Evaporators.

Send for Circulars and Prices.

PLANT & BRO.

St. Louis, Mo.

THE KIRBY!

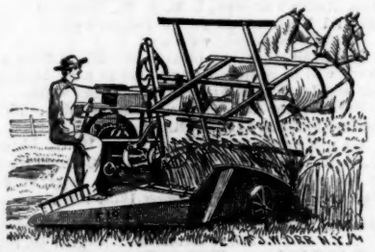
PERFECT REAPER! PERFECT HAND RAKER! PERFECT MOWER! PERFECT SELF-RAKER!
All Combined in the same Machine.

MOST DURABLE!

NEW YORK STATE AGRICULTURAL SOCIETY
AWARDED TO D. M. Osborne & Co. AUBURN 1st Prize Gold Medal for the Kirby Harvester at the National Field Trial, Auburn. 1866

Lowest Prices!

FARMERS SEND FOR A CIRCULAR.



"IT BEATS THEM ALL."

THE BEST AND CHEAPEST MACHINE.

LIGHTEST DRAFT!

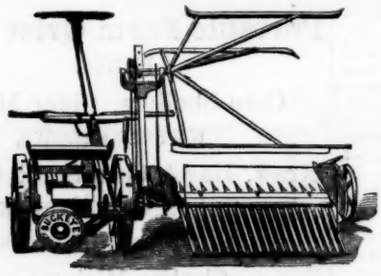
BEST SELF-RAKE!

This is the AUBURN KIRBY, manufactured by D. M. OSBORNE & Co., Auburn, N.Y
Send for Pamphlet. Address, **D. M. OSBORNE & CO.**, P.O box 2583, St Louis, Mo.
Dick Ransom, General South-western Agent, No. 1246 Broadway, "Whittier Buildings."

WESTERN AGRICULTURAL DEPOT AND SEED STORE.

WM. KOENIG & CO.,

No. 207, (Old No. 56) North Second St., St. Louis, Mo.



We are just in receipt of a large supply of

LANDRETH'S GARDEN SEEDS,

Now ready for delivery. We are prepared to fill all orders for these celebrated Seeds that we may be favored with; we can assure our patrons that the seeds purchased of us are fresh and true to name. We draw the attention of Farmers to

B'ROWNS IMPROVED **ILLINOIS CORN PLANTER.**

DEERE'S CELEBRATED MOLINE PLOWS.

The Favorite Hawkeye Sulky Corn Cultivator.

The World Renowned BUCKEYE Reaper And Mower, which took the

Grand Gold Medal of Honor at the Great Auburn Field Trial as the best machine. We have also on hand a large supply of

Threshers, Wheat Drills, Corn Shellers, Cutting Boxes, Sugar Mills & Evaporators,

Clover, Timothy, Blue Grass, Red Top and Orchard Grass Seeds, &c.

Descriptive Circulars sent gratis on application.

WM. KOENIG & CO., 207 North 2d St., St. Louis, Mo.